

ABSTRACT

PARAMETERS OF NORMAL FAMILY COMMUNICATION IN THE DYAD

By

Robert Allen Mark

The purpose of this study was to explore the communication patterns of "normal" husband-wife dyads. Based on research begun by Gregory Bateson on Complementarity and Symmetry, an interaction coding scheme was developed which codes (a) speaker, (b) speech, and (c) that speech as a response to the preceding speech. A set of rules was created to reduce the resultant eighty-nine potential categories down to nine relational codes. The resulting relational frequencies were derived from pairs of category codes or dyadic exchanges.

An exploratory study was conducted with fifteen upper and fifteen lower class Caucasian couples, with children under ten years of age. They discussed three relevant topics requiring a decision on a plan to action to deal with them. The topics, which they had to rank-order by

salience, asked what they would do if: (1) their child was overheard discussing sex with a friend using misinformation; (2) night-time television programming began to offer programs for which their children wanted to stay up late; and (3) what they would do with their family in case of a Civil Defense emergency.

Data from these ninety dialogues was analyzed by time, salience, class, sex, and pattern differences on both aggregated and individual cases. It was found that couples possess patterns or rules of communication and that these patterns are not only discernable in the normal population but consistent for these dyads over topics varying in salience. Strong evidence is presented indicating relational consistency in both aggregate and individual cases. Relational differences between upper and lower class respondents demonstrate that they do, in fact, communicate to their spouses differently. Upper class respondents demonstrated a greater variance in pattern useage than their lower class counterparts. There was a significant difference, also, in the frequency of overt disagreements among lower class couples, while upper class couples had significantly more covert disagreements (disconfirmations). In addition, several major interaction patterns were found in this sample. These included: stable complementary, stable symmetrical, asymmetrical competition toward one-down and symmetry, escalating symmetry, and fluid.

PARAMETERS OF NORMAL FAMILY
COMMUNICATION IN THE DYAD

By

Robert Allen Mark

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Communication

1970



Copyright by
ROBERT ALLEN MARK

1971

To Carole

ACKNOWLEDGMENTS

A dissertation is a difficult task and takes many divergent pieces, stuck together with patience, will-power, knowledge and faith to make it into an understandable whole.

This dissertation might have still been locked inside my head without the guidance of my Committee Chairman Dr. R. Vincent Farace. Certainly, I would still be working on gathering and coding the data without the very able assistance of Minna "Minnow" Schneir, Steve Moore, and Steve Dupres. Thanks also go to my office-mate, Bob Zimmerman, for many heavy "rap" sessions on the subject. But, all of this would have been a heavier burden without the atmosphere and environment which my wife, Carole, provided. Thanks to all of you.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
Chapter	
I. INTRODUCTION	1
Statement of the Problem	1
An Approach to the Study of Dyadic Communication	5
II. RELEVANT LITERATURE	13
The Contributions of Small-Group Research to Family Communication	13
Leadership	14
Group Cohesiveness	16
Power	17
Summary	20
A Review of Family Interaction Studies	21
Methodological Problems Connected with Measuring Interaction in the Family	26
Sampling Situations	26
Interaction Units	29
Selection of Subjects	30
III. RESEARCH DESIGN	32
General Study Design	32
Sampling Procedure	33
Data Collection	34
Operationalization of Variables	36
Analysis Plan	49
Summary	50

Chapter	Page
IV. FINDINGS	51
Introduction	51
Coder Reliability Check	55
Description of Normal Population	
"Speeches"	56
The Significance of Time	61
Salience Findings	62
Class Findings	65
Sex by Class Findings	70
Successive Interactions	74
Relational Analysis	79
Individual Consistency over Topic	
Salience	84
Individual Cases	86
Summary	92
V. SUMMARY AND CONCLUSIONS	94
Review	94
Other Statistical Analysis	99
Future Research Suggestions	102
Short-term Studies	102
Long-term Developmental Investigation .	104
Larger than Dyadic Groups	105
Conclusions	107
BIBLIOGRAPHY	109
APPENDIX	115

LIST OF TABLES

Table	Page
1. Topic salience by class	54
2. Categorizing reliability check	56
3. Normal population code frequencies	58
4. Length of time talked	62
5. Code frequencies by salience	63
6. Code frequencies by class	66
7. Significant sex by class findings	72
8. ANOVA table for code 26	74
9. Frequencies of paired interactions (significant only)	76
10. Rational code frequencies by class and sex .	81
11. Male-female comparison over topic salience, by class	82

LIST OF FIGURES

Figure	Page
1. Comparison of class variances (an approximation)	80

CHAPTER I

INTRODUCTION

Statement of the Problem

Recently, the direction in Psychiatry, Clinical Psychology, and Communication has shifted from an emphasis on the individual and his internal state(s), to the study of interpersonal processes. Historically, the shift received its initial impetus in the late thirties with the emergence of object-relations and transaction theory. Stimulated by the belief that Freud's view of man failed to conceive of man in relation to a world peopled by others who act as centers of reorientation to the objective universe, George Herbert Mead developed the concept of the "generalized other" which served to mediate "my" view of "myself";¹ Cooley conceived of "the looking-glass self";² and Dewey formulated a "transactional" view of man in society.³ Sullivan's view of personality--"the relatively

¹G. H. Mead. Mind, Self, and Society. Univ. of Chicago Press, Chicago, Ill., 1934.

²C. H. Cooley. Human Nature and the Social Order. Free Press of Glencoe, 1956.

³E. Becker. The Birth and Death of Meaning. Free Press of Glencoe, 1962.

enduring pattern of recurrent interpersonal situations which characterize a human life"¹ was the next step toward the emergence of the study of communication and communication systems as a unique process.

But what is it that is different about this latest approach? Perhaps the most important change is that of viewing a relationship as an interaction rather than in stimulus-response or object-relation terms. Philosophically, the meaninglessness of the category "I" without its complementary category "you" was developed by Martin Buber.² Experimentally, it suggests that the smallest unit of experimentation is not the individual, but the dyad, and data must be gathered on that system as the elemental unit.³

Another central difference of this new approach to the study of man, is the concentration on relationships not as isolated and independent units for analysis, but as an integral part of communication systems.⁴ Hall and Fagen view a system from a General System Theory perspective as:

¹H. S. Sullivan. Conceptions of Modern Psychiatry, reprinted from Psychiatry: Journal of the Biology and Pathology of Interpersonal Relations, 3, 8, Feb. 1940 and May, 1945.

²M. Buber. I and Thou. Charles Scribner's Sons, N.Y., 1958.

³K. Krippendorff. "On Generating Data in Communication Research," presented at the National Society for the Study of Communication, February, 1969.

⁴A. D. Hall and R. E. Fagen. "Definition of System." General Systems Yearbook, L:18-28, 1956.

a set of objects together with relationships between the objects and between their attributes.¹

For a communication system, based on minimal General System Theory requirements, the necessary elements would appear to be two mutually exclusive "sub-systems,"² sharing, at least in part, a common sign-code system with relationship rules. The system maintains itself via these relationship rules which characterize the systems interdependency and feedback mechanisms.

A study of relationship rules involves the study of a matter-energy transformation which is both patterned and symbolic³ involving the observation and analysis of the total system without reduction of said analysis to component or subsystem terms--one of the methodological faults of most current studies (to be discussed later). A system which is maintained by the passage of patterned and symbolic matter-energy transformations via some message-medium over time can be termed a communication system. One set of these transformations can be termed an interaction. A series of these sets would identify a transacting communication system.

¹Ibid., p. 18.

²J. G. Miller. "Living Systems: Cross-Level Hypotheses," Behavioral Science, Oct. 10, 1965.

³D. K. Berlo. "The Context for Communication Study," a recent essay, Michigan State University, 1969.

Implicit to a system is a span of time. By its very nature a system consists of an interaction, and this means that a sequential process of action and reaction has to take place before we are able to describe any state of the system or any change of state.¹

The importance of the systems point of view to communication is twofold. First, it focuses attention on the interacting system, whether it be the dyadic friendship or relationship, the family, office, or organization, etc., rather than solely on an individual, he and his "object relations," or each of the individuals within that system taken separately. Secondly, it views systems as possessing certain similar characteristics across levels. Thus, much of what may be found at the family level, where much of this interaction systems analysis has been conducted, should also be found in other, more complex systems.

The study of communication behavior in ongoing relationships provides an opportunity for a new type of experiment, with the potential for the discovery of variables significant to the understanding of human behavior. These variables are eliminated when interaction studies focus on individual behaviors. This thesis will attempt to describe the patterns of communication utilized by normal husband-wife dyads when they resolve conflict and

¹H. L. Lennard and A. Bernstein. The Anatomy of Psychotherapy. Columbia University Press, N.Y., 1960, pp. 13-14.

reach decisions. The only concepts which can be considered are those which (1) offer a systems level perspective, (2) offer a communication orientation, or (3) are useful in extending our understanding of groups-with-a-history to the discovery of order in their communication behavior.

An Approach to the Study of Dyadic Communication

Much of the current family research has been conducted with abnormal or pathogenic families. These families, in theory, utilize a more rigid and restricted set of communication patterns which are consistent over topics.¹ In the so-called "normal" families these same patterns are found. However, for them, theoretically, the ability to choose among patterns for problem-solving (coping) remains a possibility.

As the family, or other small groups with a history, communicate at two levels--content and relationship--² they pose a special problem for the researcher.

Most standard existing assessment techniques are unsuitable for assessment of groups-with-a-history where

¹D. Jackson and P. Watzlawick. "Development of a Structured Family Interview," final Progress Report to the National Assoc. for Mental Health, Jan., 1966.

²P. Watzlawick. An Anthology of Human Communication. Science and Behavior Books, Inc., Palo Alto, California, 1964.

the focus is on such things as relational communication and its effect on the emotional stability, message integration, and system maintenance. A new technique has been emerging from family therapy, and it will be the purpose of this section to present the concepts and methods that have led to it. This approach is distinguished by its evaluation of interaction patterns of whole and partial families as systems. It requires that researchers simultaneously focus on two or more family members in terms of their transactions.¹ The aim here is to find out not only how the individuals characteristically respond to certain kinds of stimuli, but also what types of stimuli these family members characteristically present to one another, and in response to what. The process of the interaction is of prime concern. Arthur Bodin suggests that in this kind of analysis:

family members are viewed as participants in interaction sequences that cannot be understood in purely individual terms, because such event chains cannot occur in isolated individuals, except perhaps at an imaginary level. Though the fantasied relationships of family members may be interesting and important, their actual relationships are at least as important, and cannot be investigated merely by attempts to

¹I. Boszormenyi-Nagy. "A Theory of Relationships: Experience and Transaction," pp. 33-87 in *Intensive Family Therapy*. I. Boszormenyi-Nagy and J. L. Framo (eds.), Harper and Row, Pubs., N.Y., 1965.

integrate individual family members' fantasies into a coordinated picture of the crucial family facts.¹

Of greatest concern to those studying communication interactions, is the structuring of a situation most conducive to revealing the group's natural mode of interaction. Haley has created perhaps the most exhaustive list of criteria for family experiments:

- (1) The experiments must deal with the responses of family members to each other rather than their individual responses to stimuli from the experimenter. The experimenter must require family members to interact with each other.
- (2) At least some of the experiments must be of such a nature that any one family will behave in a consistent way in that experiment over a period of trials.
- (3) The experiments must be of such a nature that it cannot be argued that intelligence, education, or manual dexterity of the family members was a major determinate of the results.
- (4) The experiments must be such that it cannot be argued that because one of the members is a Schizophrenic (or otherwise mentally ill) that the results must inevitably follow.
- (5) It must be a type of experiment which a family will participate in, willingly or not. Thus, the task must be something that every member of the family can do.
- (6) The experiment must be of such a nature that it does not impose patterns on the family by forcing them to change under duress their typical patterns.

¹A. M. Bodin. "Conjoint Family Assessment," in Advances in Psychological Assessment. P. McReynolds (ed.). Science and Behavior Books, Palo Alto, California, 1968, p. 223.

(7) The experimentation must involve multiple experiments to measure multiple factors in families.

(8) The experiments must show extreme differences between types of families, granted the sampling problems in this sort of study.¹

The most traditional research approach to the study of the family's communication behavior has been to administer "paper-and-pencil" or other similar conventional scales to individual members of the family.² Several techniques, while relying on these individual measures, have also aggregated them. This produces individual scores, which can be compared with measures of other members of the group, so as to produce a meaningful picture of interpersonal patterns, though not actually interactional. Such methods include the Self-Disclosure Questionnaire³ and the Interpersonal Method.⁴

Another approach to the analysis of family communication patterns has been the "conjoint" or interactional approach. Within this focus studies have utilized

¹J. Haley. "Family Experiments: A New Type of Experimentation," Family Process, 1, 1962.

²J. L. Framo. "Systematic Research on Family Dynamics," in Intensive Family Therapy. I. Boszormenyi-Nagy and J. L. Framo (eds.), Harper and Row, Pubs., N.Y., 1965.

³S. M. Jourard. The Transparent Self. D. Van Nostrand Co., Princeton, N.J., 1964.

⁴R. D. Laing, H. Phillipson and A. R. Lee. Interpersonal Perceptions, Springer Publ. Co., N.Y., 1966.

primarily subjective methodological techniques. These rely heavily on the ratings of judges. The Bales' interaction categories have often been used for these purposes.¹

Leik utilized this method to study interaction in terms of sex-role differentiation and effects of consensus and satisfaction.² O'Rourke utilized it to investigate the premise that family interaction would vary as a function of social content.³ Although the former experiment was exciting because of its approach to integrating the work conducted on authentic families, artificial families and ad hoc groups, and the latter because it attached the effects of the variable "situational context" on interaction, both rely on the Bales' observation system for data.

The Bales' I.P.A. Technique is a means of classifying behavior, act by act, into twelve categories, which can be combined into special ratios.⁴ This system forces each unit of behavior into a single category, even though the ambiguity of that behavior may be maddening to some family members. Also, Winter and Ferreira suggest that

¹R. F. Bales. Interaction Process Analysis. Addison-Wesley, Cambridge, Mass., 1950.

²R. Leik. "Instrumentality and Emotionality in Family Interaction," Sociometry, 26, 1963, pp. 131-145.

³J. F. O'Rourke. "Field and Laboratory: The Decision-Making Behavior of Family Groups in Two Experimental Conditions," Sociometry, 26, 1963, pp. 422-435.

⁴Bales, op. cit.

the categories are multidimensional in meaning.¹ According to their research, the Bales' system doesn't separate instrumental and expressive dimensions in order to make coding less inferential. Furthermore, the Bales' observer, if he is performing properly, considers only the preceding act in classifying the present one--thereby excluding emotional overtones generated by an interrelated sequence of behaviors.² For the purpose of family interaction analysis the tracing of an interaction process via sequential events is of prime concern. Flanders has maintained this sequential approach in his Verbal Interaction Category Scheme used in classroom situations.³ With some modification it may even be useful in the analysis of family communication.

Another approach to conjoint family interaction analysis uses data derived from more objective and rigorously quantifiable measures. This methodological technique attempts to cut through the shared history, subtle "shorthand" ways of communicating and mutual dependence

¹W. D. Winter and A. J. Ferreira. "Interaction Process Analysis of Family Decision-Making," Family Process, 6, 1967, pp. 155-173.

²R. Turner. "The Ethnography of Experiment," American Behavioral Scientist, April, 1967, Sage Publ., Inc., pp. 26-29.

³R. Flanders. "Interactional Analysis," in Interaction Analysis, Amidon and Hough (eds.), MacMillan Publ. Co., N.Y., 1963.

and quantify the multiple levels of communication so prevalent in the interaction of "traditional" groups. Much of Haley's work in coalition formation and flexibility,¹ and speech sequences in family triads;² Jackson's theoretical conceptualization of family homeostasis,³ its experimental validation by Verwey,⁴ and the subsequent exploration into the family quid pro quo rule by Jackson;⁵ Strodtbeck's revealed differences technique requiring reconciliation of differences of interpretation of individual evaluations of experiences;⁶ and the theoretical orientation of Watzlawick to interactional patterns, meta-patterns and relationship rules⁷ with an attempt at

¹Haley, op. cit.

²J. Haley. "Research on Family Patterns: An Instrument Measurement," Family Process, 3, 1964, pp. 41-65.

³D. Jackson. "Family Interaction, Family Homeostasis, and Some Implications for Conjoint Family Psychotherapy," in Science and Psychoanalysis. J. H. Masserman (ed.), Vol. 5, Grune and Stratton, N.Y., 1959.

⁴N. E. Verwey. "Relationship of Adaptability to Interactional Contingency and Interpersonal Prediction," unpublished dissertation, University of Washington, 1962.

⁵D. Jackson. "Family Rules: The Marital Quid Pro Quo," Archives of General Psychiatry, 12, 1965, pp. 589-594.

⁶F. L. Strodtbeck. "Husband-Wife Interaction Over Revealed Difference," American Sociological Review, 16, 1951, pp. 468-473.

⁷P. Watzlawick, J. H. Beavin and D. Jackson. Pragmatics of Human Communication, W. W. Norton and Co., N.Y., 1967.

operationalization by both Sluzki and Beavin,¹ and Veron² have all been methodological approaches of a more objective systems quantifiable nature. The constructs of complementarity and symmetry which emerged from this theoretic orientation focus on different forms of control based upon a particular systems stereotypic communication behavior.

The importance of this latter approach to communication rests on its ability to conceptualize communication from the systems level rather than from the individual level. At the individual level our concern is the individual and his conceptually isolated behavior. The alternative systems perspective is illustrated by Scheflen:

We notice three people standing on a corner facing each other and talking. A number of abstractions is possible. Each has on a brown suit. Thus, brownness is abstractable. So is humanness, or standingness, or twoleggedness. It is also possible to make another kind of abstraction. We can abstract relatedness, e.g. proximity, kinship, cooperation, and so on. Once we abstract relatedness we no longer have organismic wholeness or individuality. We have a concept. There are only qualities or behavioral arrangements in a concept; there are no people.³

Interaction or communication analysis must proceed with this systems perspective if meaningful progress is to be made.

¹G. E. Sluzki and J. H. Beavin. "Simetria y Complementaridad: una Definicion Operacional y una Tipologia de Parejas" (Symmetry and Complementarity: An Operational Definition and a Typology of Dyads) Acta Psiquidtrica y Psicologica de America Latina, 11, 1965, pp. 321-330.

²G. E. Sluzki, J. H. Beavin, A. Tarnopolsky and E. Veron. "Transactional Disqualification," Archives of General Psychiatry, 18, 1967.

³A. E. Scheflen. "Stream and Structure of Communicational Behavior," Behavioral Studies Monograph #1, E. Penn. Psych. Inst., 1965, p. 6.

CHAPTER II

RELEVANT LITERATURE

The Contributions of Small-Group Research to Family Communication

There is considerable dove-tailing of the research interests as expressed by small-group and family communication researchers. Their differences are significant to the study of communication systems. In fact, it would be difficult, at best, to understand the dynamics of the family system without some of these small-group conceptualizations. On the one hand, small-group researchers have explored such concepts as leadership, power, coalition formation, group cohesiveness, and their effects on communication networks in so-called "ad hoc" groups (groups without a history or any chance for one); however, they ignore the varieties and subtleties of levels and intensities of interaction found to occur in longer-term groups, such as the family. On the other hand, while the family communication researcher is exploring more significant communication concepts, his current methodologies lack the precision of the small-group approach. Thus, there is something to be gained from both kinds of

research--although my emphasis will be on family communication and the way small-group research dove-tails with it, when it does. It is ironic, however, that so many small-group researchers agree that the family is the most basic of primary groups,¹ yet a study utilizing the family as its subject remains a rarity in this area. As Watzlawick et al. state:

Besides their practical importance as social or cultural institutions, such vital-groups-with-histories are of particular heuristic significance to the pragmatics of communication. . . .Stranger groups or chance encounters may provide interesting idiosyncratic material, but unless one is interested in singular artificial, or novel phenomena, such interaction is not so valuable as that of a "natural" network in which we assume the properties and pathologies of human communication will be manifested with clearer pragmatic impact.²

The purpose of this examination of small-group research concepts is to afford an opportunity to understand the dynamics of "vital-groups-with-histories" which influence the nature of the interaction process.

Leadership

Leadership is a concept central to much of the work done in small groups. However, as Cartwright and Zander state:

¹A. P. Hare. Handbook of Small-Group Research, The Free Press, Glencoe, N.Y., 1962.

²Watzlawick et al., op. cit., p. 130.

It is unfortunate that most of the carefully controlled studies of leader behavior have been conducted with temporarily organized groups where, almost of necessity, members are not concerned with the preservation of the group.¹

In discussing leadership, they state that "nearly every conception of leadership contains the notion that a true leader exerts more influence on the group and its activities than does the average member."² Unfortunately, they make no distinction between positive and negative styles of influence and leadership, something of great concern to long-term groups. This aspect of "leadership" is brought out in some of the family communication studies of pathological families, to be discussed later.

Another leadership pattern relevant to the study of the family and other communication systems is that of passive mastery of the group. This means of leadership has not yet been adequately explored by small-group literature though quiet leadership utilizing barely noticeable, often subtle, signals is of prime concern. In the family, this leadership may follow prescribed role patterns as suggested by Parsons.³ This hypothesis was recently examined in a family setting by Murrell and

¹D. Cartwright and A. Zander. Group Dynamics: Research and Theory, Row Peterson, Evanston, Ill., 1962, p. 496.

²Ibid., p. 493.

³T. Parsons and R. F. Bales. Family Socialization and Interaction Process, Free Press, Glencoe, Ill., 1955.

Stachowiak. They found the significant leadership differences between clinic and non-clinic families to be

between cooperative and effective leadership versus an ineffective leadership which results from a lack of support and cooperation on the parts of the parents. Effective family leadership seems to require that the parents have the greater influence, and that one parent take the more dominant leadership role, with the other parent cooperating and supporting this leadership.¹

Group Cohesiveness

Another concept of concern to small-group researchers has been "group cohesiveness." This term usually includes the conditions under which groups have appeal, command loyalty, strive toward common goals, and are united against extra-group attack. Cartwright and Zander postulated that a group's attractiveness rests on the extent to which it is need satisfying to individual members.² Others, however, have found that interaction in ad hoc groups characterized by high self-oriented need produces more conflict, less cohesion, and less satisfaction among members.³ Perhaps Gross best resolves this

¹S. A. Murrell and J. G. Stachowiak. "Consistency, Rigidity and Power in the Interaction of Clinic and Non-clinic Families," Journal of Abnormal Psychology, 72, 1967, pp. 265-272.

²Cartwright and Zander, op. cit.

³T. Caplow. Two Against One. Prentice-Hall Sociology Series, N.Y., 1968.

conflict, when in reference to "symbiosis" in groups (i.e., people cohering as a group when each has something needed to give the other) he states:

As long as those needs persist, and so long as each has no easy alternative of satisfying those needs, then the two will be linked. This does not mean they will necessarily like each other; it does mean that they will remain united whether they like each other or not. And herein lies the strength of the symbiotic tie.¹

This description certainly fits the dynamic pattern of the family and, perhaps, other long-term associations, as well.

Power

When small-group researchers explore the concept of social power, they become concerned with the changes in behavior produced by different kinds of power--reward, referent, expert, or legitimate.² Thibaut and Kelly bring this concept closer to the actualities of vital interacting groups by distinguishing between fate control and behavior control:

If by varying his behavior, A can affect B's outcomes regardless of what B does, A has fate control over B . . . (whereas) if, by varying his behavior, A can

¹E. Gross. "Symbiosis and Consensus as Integrative Factors in Small Groups," American Sociological Review, 21, 1956, pp. 174-179.

²J. R. P. French, Jr. and B. H. Raven. "The Bases of Social Power," in Studies in Social Power, D. Cartwright (ed.). Ann Arbor, Mich., Univ. of Michigan Press, 1959, pp. 118-149.

make it desirable for B to vary his behavior too, then A has behavior control over B.¹

One of the most potent forms of such behavior control is simple conformity to the behaviors and communications sent by a high power person--one who others perceive as possessing one of the above kinds of power. Kelman² has studied power and manipulated the sources of power in several ways. In one of his studies, power was manipulated such that in one condition power was defined as means control, in another as high attraction and in a third as high credibility. Kelman's findings indicate that internalization from a high credible source is a more effective, longer-term method of control than means control or attractiveness, unless the "power" source is present at all times, to insure compliance or identification, respectively. These findings hold great significance for groups-with-a-history as the possibility of means control and its potential effect is even greater in a group of this sort.

Power involving means control can be communicated in the small group by both overt demands and subtle,

¹J. W. Thibaut and H. H. Kelley. The Social Psychology of Groups, John Wiley and Sons, Inc., N.Y., 1959, pp. 102-103.

²H. Kelman. "Compliance, Identification and Internalization: Three Processes of Attitude Change," Journal of Conflict Resolution, 2, 1958, pp. 51-60.

covert directions. The dimensions of this kind of power increase in on-going groups. In the family, persuasive techniques include everything from physical punishment to subtle and sometimes manipulative threats of love withdrawal. Imagine the dilemma faced by a child pressured into taking sides in a parental argument, with the implication of rejection by the parent he doesn't support. The extreme of this pattern is found in the schizophrenic child, forced to deny and distort reality by the double binds communicated by his parents.¹

Studies of formal communication patterns within small-groups have stressed the power-and-status dimension as being crucial in developing communication channels and networks.² Lyle has studied this in small task groups and found more communication in "democratic" than "authoritarian" group, when subjects performed both relevant and irrelevant tasks. Utilizing the forced structuring developed by Leavitt⁴

¹J. Haley. Strategies of Psychotherapy, Grune and Stratton, Inc., N.Y., 1963.

²H. H. Kelley. "Communication in Experimentally Created Hierarchies," Human Relations, 4, 1951, pp. 39-66; and J. Ruesh, J. Block and L. Bennett, "The Assessment of Communication," Journal of Psychology, 35, 1953, pp. 59-80.

³J. Lyle. "Communication, Group Atmosphere, Productivity and Morale in Small Task Groups," Human Relations, 14, 1961, pp. 369-379.

⁴H. J. Leavitt. "Some Effects of Certain Communication Patterns on Group Performance," Journal of Abnormal and Social Psychology, 66, 1951, pp. 38-50.

("circle," "chain," "wheel" and "completely-connected" networks), Cohen sought to determine what effects a change in networks would have. His findings indicate that past experience with a network helped speed problem solving.¹ However, communication networks in families and other groups with histories would appear to demand a more complicated conceptualization. These kinds of groups exist as intricate, interrelated systems, possessing unique styles and subtle rules of communication, affording little opportunity for self-generated change.

Summary

Small-group research has focused on experimentation within ad hoc groups where they can control the variables to a high degree. By manipulating amounts of information, nature of credentials, quantity and mode of communication, weighting participants, etc., these researchers have been able to explore small group leadership, cohesiveness, power, and networks. Their findings work in ad hoc game situations in which the costs and involvement are low. They have found that "leaders" exert more influence on the group;

¹A. M. Cohen. "Changing Small Group Communication Networks," Administrative Science Quarterly, 6, 1962, pp. 443-462.

that people cohere to satisfy needs; that behavior is controllable by utilizing different kinds of power mechanisms; and that different networks vary in efficiency and according to previous network experience. These findings have rarely been examined in existing small groups. Nonetheless, they afford us an understanding of the dynamics of these groups. Of particular relevance are the concepts of leadership, and power or control mechanisms which can be viewed from a systems level. These concepts, as will be seen in the material that follows, are of great use in understanding the behaviors of family and other small groups with a history.

A Review of Family Interaction Studies

Research conducted in the family has resulted in the drawing of only a few conclusions about "normal" and "abnormal" family interactions. This is particularly true when we consider those findings relevant to a General Systems Theory view of communication. Though some have hypothesized the impossibility of husband-wife dyads disguising their communication patterns in public; while others have advised researchers to only use situations specifically relevant to a family in order to avoid the camouflaging of disagreement; at least one researcher has found that families will attempt to give the impression that they are in full agreement, even when in an

obvious state of disagreement, while in a laboratory setting.¹ Wynne et al., referred to this as "pseudo-mutuality."² This finding may indicate a particular stereotypic coping behavior couples utilize to protect private behavior from public viewing.³ Thus, this response pattern may indicate either a methods effect or, more importantly, may be due to the lack of centrality or importance of the decision. It is interesting to note here that Bachove and Zubaly found that peer groups tended to agree and disagree more frequently than did families.⁴

Ferreira, in his studies of family decision-making, found several different macro-styles. Those that emerged from his study are: (a) unanimous decisions--where the family choice corresponded with the individual choices of every member; (b) majority decisions--where the family choice corresponded to the individual choices of two members; (c) dictatorial decisions--where the family choice equaled only one member's preference; and (d) chaotic

¹P. Lerner. "Resolution of Intrafamilial Role Conflict in Families of Schizophrenic Patients," Journal of Nervous Mental Disorders, 3, 1965, pp. 342-351.

²L. C. Wynne, I. M. Ryckoff, J. Day and S. I. Hirsch. "Pseudo-Mutuality in the Family Relations of Schizophrenics," Psychiatry, 21, 1958, pp. 205-220.

³R. Ryder and D. Goodrich. "Married Couples Responses to Disagreement," Family Process, 5, 1966, pp. 30-42.

⁴J. L. Framo, op. cit.

decisions--where the family choice corresponded to no individual preferences.¹ This study, as replicated in 1965, included two other variables--decision-making time and decision appropriateness. Results demonstrated that normal families reached more spontaneous agreements, took less time, and made more appropriate decisions than abnormal families.²

McLeod, Chaffee and Wackman developed a series of studies also concerned with decision-making. Their studies focused on the politicalization of the young and the macro-interaction patterns utilized. Their fourfold typology resembling, in part, that of Ferreira's (above) includes: (a) protective--where the child must steer clear of controversy and is prohibited from expressing dissent; (b) consensual--where the child is exposed to and allowed to express controversy, but is constrained to develop concepts and values identical to his parents; (c) pluralistic--where the child may explore, express controversial ideas and reach his own conclusions; and (d)

¹A. J. Ferreira. "Decision-Making in Normal and Pathological Families," Archives of General Psychiatry, 8, 1963, pp. 68-73.

²A. J. Ferreira and W. D. Winter. "Family Interaction and Decision-Making," Archives of General Psychiatry, 13, 1965, pp. 214-223.

laissez-faire--where the child is not prohibited, but also is not exposed to information or controversy.¹

A merging of small-group and family communication research was attempted by Bodin. To do this, samples were selected to include ad hoc triads of strangers and actual family triads--forming problem, normal and synthetic family triads. The three family types studied differed very little in their overall game strategy, but produced distinctive interaction patterns demonstrating more agreement and more efficient joint decision-making in real than in artificial families, and greater parent-child agreement, maternal influence and maternal role perception distortion in normal than in abnormal families.²

Another set of significant findings was produced by Jay Haley with his investigations into family triads of ordinary communication. While allowing them to predetermine their own plan of coalition control prior to the experiment, Haley only allowed them to form experimental alliances by simultaneously pushing their "coalition buttons." Success was measured by execution of a plan by

¹J. M. McLeod, S. H. Chaffee and D. B. Wackman. "Family Communication: An Updated Report," 1967, a paper presented to the Theory and Methodology Division Assoc. for Ed. in Journalism.

²A. M. Bodin. "Family Interaction: A Social-Clinical Study of Synthetic, Normal and Problem Family Triads," a paper read at the Western Psychological Assoc., 1966.

which an agreed upon family member would win by accumulating the greatest time spent in coalition. Haley found a significant difference between normal and abnormal families, with the abnormal families unable to carry out their plans.¹ Thus, coalition flexibility may indicate the homeostatic nature of such a group with a history.

In Haley's 1964 study of speech sequence in family triads (who speaks after whom), he found a more random state of interaction in normal than in clinic families.

As he states:

Organization means limitation, and the more pathological the more limited. Therefore, on this frequency count the more normal families will use more of the possible sequences more often, and the disturbed families use fewer of the possibilities and use some of them more often than others. Therefore, on a scale of deviation from random behavior, the normals will tend toward randomness and the disturbed will tend away from randomness.²

Other findings from family interaction studies include: (1) more rejection and a higher expectation of rejection in pathological, than in normal, families;³ (2) more time and greater amounts of silence required by pathological families to create TAT stories;⁴ (3)

¹J. Haley, op. cit., 1962.

²J. Haley, op. cit., 1964.

³Ferreira, op. cit., 1963.

⁴A. J. Ferreira, W. D. Winter and E. J. Poindexter. "Some Interaction Variables in Normal and Abnormal Families," Family Process, 5, 1966, pp. 60-65.

Schizophrenia may result from the combined maladjusted communication behavior of both parents as they interact with their child;¹ and (4) patterns of interaction within families tend to remain consistent and stable over time and situation.² These findings have significant implications for the continued study of interaction in groups with a history.

Methodological Problems Connected with Measuring Interaction in the Family

This section deals with several selected methodological issues stemming from the previous review of the literature.

Sampling Situations

Given the potential for family defensiveness to the uncovering of conflict (labeled "pseudo-mutuality" by Wynne) and the resulting high need for families to present themselves to the social scientist as "normal," it would appear that researchers must attempt to circumvent these coping behaviors. Much of the family interaction research to date functions under the assumption that by utilizing either an ambiguous stimulus and/or a difference to

¹G. Bateson. "Minimal Requirements for a Theory of Schizophrenia," Archives of General Psychiatry, 2, 1960, pp. 477-491.

²Murrell and Stachowiak, op. cit.

resolve, the family can only resort to its most typical patterns of behavior to cope with this stress. As

Watzlawick states:

A family's specific homeostatic processes do become increasingly apparent to the observer, since in the course of a series of interviews stresses occur which force all family members to fall back upon their typical interactional patterns. . . .It is possible to create such stress situations deliberately, rather than wait for them to take place spontaneously, and this can be done within the framework of task performance.¹

However, there are several factors in the research setting which may lead one to question the validity of that assumption. The presence of either the experimenter or his tape recorder during a family interaction is certainly a powerful stimulus not yet investigated by family researchers. If the experimental setting is outside the home this effect may be compounded. Given that family members will have to live with each other after the interview is over, one can only assume that the less the experimental situation is like their private interaction territory the more their public responses will be tempered. With the ethical problem of "bugging" homes, the researcher, at best, can only hope to reduce his effect by gathering his data as unobtrusively as possible.

¹P. Watzlawick. "Development of a Structured Family Interview," January, 1966, a final report to the National Assoc. for Mental Health, p. 1.

Even if the researcher can obtain natural communication behavior in his sample, he must cope with another issue. Will the experimental tasks employed tap the issues which are particularly significant to family living? As no one has yet specified typical tasks and situations relevant to families, it is only accidental that a particular manipulation will represent a conflict or topic of concern family X is coping with at that point in time. Perhaps for now, the best the researchers can do is present stimuli to a target audience that with high predictability that family will encounter in the not-too-distant future. For example, families with young children might be presented with the problem of discussing how they will teach "sex-education" to their children. Another example would be to have the family plan some event together. Framo suggests two other approaches to this problem:

A meaningful experiment would require that each family be presented with the controversies it is inherently struggling with, not with abstract controversies which result in polite play-acting. Preliminary study of the family should reveal its Achille's heel . . . (and)

Investigation of symptom-free families in a series of exploratory sessions, dealing with the normal crises every family has to deal with, is one research project worth doing.¹

¹J. L. Framo. "Systematic Research on Family Dynamics," in Intensive Family Therapy, I. Boszormenyi-Nagy and J. L. Framo (eds.). Harper and Row, N.Y., 1965, pp. 433-455.

Interaction Units

Even if the researcher can reduce his effect and select topics that are both relevant and capable of uncovering the family's normal communication behaviors, there still remains the task of appropriate selection and measurement of the interactional behavior. Few attempts have been made to categorize interactions beyond a content level. The problems inherent in the Bales system, though perhaps the most extensively used system of interaction analysis, have already been discussed. I have also already suggested the necessary criteria for a systems approach to interaction analysis; what remains is the careful selection of variables, their operationalization and an attempt to explore the practicality and significance of using these variables for the analysis of interactions.

Probably the most successful attempts to describe an interaction and make predictions from it will utilize some combination of variables aimed at analyzing both the state of the system and the components of that system. For instance, a combination of individual voice quality or tonal characteristics with a measure of length of time, sequencing and interruptions coupled with a systems analysis of the interaction without reduction to individual measures may tell us more about relational rules, homeostatic functioning in stress situations and patterns of interaction than any of these taken individually.

Another factor to be considered in the study of interactions is that communication in a family or other group-with-a-history may be considered as both a dependent and an independent variable. It is dependent in that the background factors, personality factors, and topics of conflict all influence the communication process. It is an independent variable in that the interpersonal relationships established, the relational rules, are somewhat a result of the process of communication. Communication as a dependent variable seems logical enough. Communication as an independent variable requires us to change our viewpoint. Locke offers support for this conceptualization when he states:

A decided reduction of intimate communication between a husband and wife generally results in a decrease in family unity. This does not mean, of course, simply a decline in the number of words spoken, for a glance or a caress may convey more meaning than a large number of words. It refers primarily to less face-to-face communication, resulting from the husband and wife having different work schedules or living away from each other. Under such conditions, it is extremely difficult to maintain companionship relations and relatively easy for misunderstandings to develop. Continuous communication is apparently necessary for the maintenance of emotional attachments.¹

Selection of Subjects

The sampling techniques available for selection of subject families poses yet another methodological problem.

¹H. J. Locke. Predicting Adjustment in Marriage, Henry Holt and Co., N.Y., 1951, p. 247.

We assume "normality" when we find families in the so-called "real" world who have not undergone therapy. Likewise, we only consider them abnormal if they are in therapy. Certainly a better operationalization of these terms must be developed.

Two other major assumptions underlie the selection of experimental subjects. The first is that those people who allow a researcher to examine their private modes of communicating are not unlike those who refuse such intense experimental examination, and the second is that of consistency or stability of family interaction over time. Though these assumptions are necessary for the continuance of study in this field, they remain, nonetheless, assumptions awaiting validation.

Given an awareness of the methodological problems inherent in the study of communication in the family, research should continue to determine the nature of that communication, as well as resolve the methodological problems of research in this setting.

CHAPTER III

RESEARCH DESIGN

General Study Design

Though the search of the literature indicates that:

Family interaction is not frequently studied through direct observation. Perhaps this has had to do with the privacy of the home, with the high cost, with the fact that observation must deal with present history and does not delve into the past.¹

this study attempted just that. Discussion-decision-making tasks were administered to couples and their interaction recorded on audio tape. Since the purpose of this study was to examine the appropriateness of several interaction constructs for the purpose of interaction analysis and the description of "normal" family communication, no hypotheses were made. (Several expectations are projected later in this Chapter, however.)

¹C. C. Beels and A. Ferber. "Family Therapy: A View," Family Process, 8, March, 1969, pp. 281-329.

Sampling Procedure

The respondents in this exploratory study were 30 husband-wife dyads from the Lansing metropolitan area purposefully selected to have the following characteristics:

(1) each dyad was considered "normal" if no member of the family had participated in either "in-clinic" or "out-patient" therapy with any practicing psychologist, psychiatrist, or psycho-therapist.

(2) each dyad had at least one child.

(3) each dyad had no children over the age of ten.

(4) fifteen families came from lower-middle to lower socio-economic backgrounds while fifteen families came from upper-middle to upper socio-economic backgrounds. (This was determined by the location of their dwelling unit and subsequent questions dealing with income, education, job title, and job activity. The class divisions were based on previous work conducted by E. Bergel.¹)

Interviews were conducted during evenings and weekends of the second, third and fourth weeks in April, 1970. The interviewers were six undergraduates instructed to gather taped interviews from area residents for a public opinion survey.

¹E. Bergel. Social Stratification. McGraw-Hill Book Co., N.Y., 1962, p. 272.

Data Collection

The dyadic interviews carried out in the respondents' home typically began with some preliminary remarks by the experimenter--i.e., "I am a doctoral candidate in the Department of Communication at Michigan State University and I am currently conducting a study in this neighborhood and would be interested in having you and your (husband) wife participate in it. Here is a letter of introduction." Given permission, the experimenter entered the home (or made an appointment for some later time), made some preliminary remarks aimed at setting the couple at ease, and introduced the couple to the task, namely, the discussion of several topics dealing with problems which families may encounter.

The discussion topics were selected to meet several criteria. (1) They had to be sufficiently interesting to the subjects to insure some discussion. (2) They had to be questions for which there were no "correct" answers. Ideally, (3) they had to permit several defensible solutions and allow for differences of opinion. And, (4) they could be rank ordered from 1 to 3 in order of their salience (importance) to the dyad.

The interviewer read (and the subjects were given) the following instructions:

You will be presented with a series of situations which couples encounter from time to time. These situations can be handled in a variety of ways. We

are interested in your opinions on these matters and would like for you to discuss as many of the alternatives that seem important to you. From these different views, select an alternative which you both agree on.

There are no right or wrong solutions . . . only what both of you agree on as the most appropriate answer for the situation. Do not worry about the time, as you may take as much or as little time on each of the following three situations as you need. Do you have any questions?

After reading the instructions, the interviewer answered any questions that the respondents asked. At that point the interviewer, after turning on the recorder, physically withdrew from the immediate discussion area, though not out of sight. Upon completion of the discussion topics the couples were instructed to reach a mutually agreed upon decision as to which of these 3 topics was felt to be most salient, important or relevant to them, and which of the 3 the least salient, important or relevant. At this point the interviewer answered any further questions they had, and left.

The three discussion topics, presented to respondents in one of five orders, were:

Imagine that it is now September, 1970. Your child (children) are just beginning a new school year. The major television networks (NBC, CBS, and ABC) have decided to run more "educational" programming in the evening hours. In addition to this, there are several

new series on television that are popular among your child's (children's) friends and they have asked to be allowed to stay up later than they do now to view these programs. How would you, or you and your spouse handle this situation? Please discuss the possible alternatives and decide on a course of action.

Imagine that your child (children) are about 12 years old and have been receiving some information about human reproduction in the classroom, as well as from other children. You accidentally overhear them discussing it with a friend and you realize that their information is quite incorrect and misleading. They are not aware that you overheard them. How would you, or you and your spouse handle this situation? Please discuss the possible alternatives and decide on a course of action.

Imagine that you, your spouse and child (children) are at home together on a Sunday afternoon, and you are watching television or listening to the radio when a Civil Defense alert is broadcast. This broadcast informs you that you have only 15 minutes to prepare and take shelter prior to disaster. How would you, or you and your spouse handle this situation? Please discuss the possible alternatives and decide on a course of action.

Operationalization of Variables

In choosing a set of variables to operationalize and use in this exploratory study of "normal" family communication patterns, this author examined many of the current constructs. (See previous review of the literature.) As others have indicated:

There is no single systematic and comprehensive theory of family process and of relationship of family process to the development and sustenance of individual behavior . . . (likewise) the complex, relevant phenomena in family interaction have yet to be adequately described or conceptualized.¹

¹A. Ferber and M. Mendelsohn. "Training for Family Therapy," Family Process, 8, March, 1969, pp. 25-26.

Or as Beels and Ferber put it in another article:

. . . the problem of accounting intellectually for the interplay of events and sequences in a family session is one for which there is not yet a good language.¹

It is toward the development of this "language" capable of meaningfully describing interpersonal communication in groups-with-a-history that this dissertation is directed. Though I agree with a recent review of the psychiatric literature by Frank in which he states that no factors have been found which differentiate between psychopathological and normal families, I cannot agree with his statement that:

Apparently, the factors which play a part in the development of behavior in humans are so complex that it would appear that they almost defy being investigated scientifically and defy one's attempt to draw meaningful generalizations from the exploration which has already been done.²

Based on the review of the literature, an interaction coding scheme was developed. The criteria used in picking the constructs were: relevance, potential payoff, descriptive power, and probable utility in a theoretical approach to interaction analysis. Some of the axioms guiding construct selection were originally stated by Watzlawick as:

¹Beels and Ferber, op. cit.

²G. H. Frank. "The Role of the Family in the Development of Psychopathology," Psychological Bulletin, 64, 1965, pp. 191-205.

(1) You cannot not communicate; (2) a message sent is not necessarily a message received; and (3) every message sent contains both content and relationship elements. These axioms were updated by Beels and Ferber to include:

(1) All behavior is communicative. It is impossible not to communicate, since even the refusal to send or receive messages is a comment on the relationship between people who are in contact.

(2) Messages have 'report' and 'command' functions. Thus, 'it's raining' is a report, but depending on the context, inflection, and relationship of speaker to hearer, it may also be a command to remember an umbrella.

(3) Command messages define relationships. The command aspect of communication is the troublesome part, because it is the medium through which relationships are shaped, and in this process, ambiguity, misunderstanding and duplicity are possible . . .

(4) In families, command messages are patterned as rules. If two or more people are in a relationship for a long time, the multiplicity of commands they exchange assumes a pattern from which rules for the relationship may be derived. These rules constrain and order the behavior of family members in patterns of mutual influence which have cybernetic properties . . .

(5) Change and stability. If a member of a family wants to change the relationship, the regulating response of others which stabilizes the system by reducing change, makes it appear that the 'governor' or conservative element in the system resides in the person or persons resisting change. . . .¹

Based on the axiom that messages contain both content and relationship aspects, the analysis scheme allows us to focus on the relational aspects. If we understand that every message in an interaction serves as either the definition, reinforcement or redefinition of the nature

¹Beels and Ferber, op. cit.

of a relationship, then it should be possible to determine the modal or typical interaction pattern of any dyad. Several of the concepts offered by a group of therapists known as "systems purists" (those who "see in the family a system of countervailing power--a network of influence governed by rules which shape and constrain it."¹) including Haley, Jackson, Bateson, Watzlawick, Beavin, Sluczki and Veron, are relevant here.

The primary concepts offered by these researchers have been symmetry and complementarity (see Chapter I). To analyze an interaction as being one or the other of these necessitates a unit of measurement. A single message is of no help as a judgment as to symmetry or complementarity cannot be made without reference to preceding or succeeding messages. As Bateson and Jackson stated:

There is, strictly speaking, no such thing as a complementary piece of 'behavior!' To drop a brick may be either complementary or symmetrical; and which it is depends upon how this piece of behavior is related to preceding and subsequent behaviors of the vis-a-vis.²

Thus, a transaction, or the relation between two contiguous messages is the smallest unit of analysis to get at relationships--i.e., in a speech sequence between

¹Beels and Ferber, op. cit.

²Bateson and D. D. Jackson. "Some Varieties of Pathogenic Organization," in Disorders of Communication. David Mck. Rioch (ed.), Research Publ. A.R.N.M.D. 42: pp. 270-283, 1964.

individuals A and B the transaction units would be A_1/B_1 , B_1/A_2 , A_2/B_2 , etc. This two-message unit will be used, although Bateson and Jackson describe every item in a sequence as simultaneously a stimulus, response, and a reinforcement, indicating a triad of messages as the basic unit. The choice of a two-message unit does not deny Bateson and Jackson's belief in the 3-fold nature of a message, it merely places that in the context of two, two-message units-- A_1/B_1 , and B_1/A_2 . (For the first time, $2+2=3$.)

For the analysis of the interaction data gathered in this exploratory study we will be concerned with the structure of the content or, if you will, the "how" and not the "what." To be more specific, content may be structured as question, referential statement, instruction or order, negation, or acceptance, etc. These may be considered the generalized form in which specific content is transmitted. Therefore, disregarding what is said, it is possible to determine how a dialogue progresses via a combination of the basic grammatical forms (interrogative, declarative, and imperative) in addition to the metacommunicational categories of confirmation (agreement), rejection (negation), and disconfirmation (non-existence of relationship given a particular definition of that relationship at a particular point in time).

According to this scheme, some examples of symmetrical and complementary transactions have been listed by Sluczki and Beavin. These include:

giving/taking instruction=complementary (giving=one-up,
taking=one-down)
asking/answering=complementary (asking=one-down, answering=one-up)
asserting/agreeing=complementary (asserting=one-up, agreeing=one-down)
referential statement/referential statement=symmetrical
agreeing/agreeing=symmetrical
giving instructions/countering with instructions=symmetrical¹

Given this as a starting point, this author became concerned with other aspects of the interaction which appeared to be potentially as important as what Sluczki and Beavin were working with. Their system only allows for coding alternating speeches. This ignores the whole problem of mobilization, or how an individual becomes a principal speaker.

It appeared that there were styles of mobilization which went beyond merely waiting for the other individual to pause or complete a thought. Individuals tend to also get into a conversation by "talking over" someone else until they finally "get the floor." There are still others who "talk over" but never succeed. This aspect of an interaction cannot be ignored. Likewise, the person who answers his own question or ends every statement in a question is an important form of relational communication that was included.

¹Sluczki and Beavin, op. cit.

With these concerns in mind, a coding scheme was developed, aimed at coding each speech (a "talk" by an individual of any length, beginning with his first word, and continuing until the other party in the dyad speaks) in the interaction. Each speech had to be coded as to who spoke it (male or female), what kind of speech was it in terms of a modified grammatical format incorporating other "what was it" aspects, and what it was relative to the statement that came before it (for the purpose of first level relationship analysis and sequencing). This was accomplished by using a three-digit coding form as follows:

1st digit code: male = 1
female = 2

2nd digit code: question = 1
assertion = 2
instruction = 3
orders = 4
talking over = 5
assertion and question = 6
question and assertion = 7
other = 8
laughter = 9

3rd digit code: agreement = 1
disagreement = 2
extension = 3
answer = 4
disconfirmation = 5
topic change = 6
agreement and extension = 7
disagreement and extension = 8
other = 9
laughter = 0

Code all silence over 2 seconds as 000; add another 000 for every additional 5 seconds of silence.

Given these three digits it becomes possible to code an individual, what his speech was and in relation to what. An individual could only succeed himself in the speech sequence by either successfully interrupting (for example, a 153 code followed by a 123 code) or by making a major shift in his speech--i.e., following an assertion or question with an instruction or order. The first digit refers to speaker's sex and the second digit follows the grammatical rules for forms of speech. This is true for all but "talking over," where the "second" individual is speaking while the "first" individual is continuing the speech he or she began prior to the "second" individual's speech; "other" which refers to speeches that might qualify as "filled hesitation pauses"¹ and consist primarily of "well," "uh," "but," "but, well, I mean . . .," and laughter, which when it appears in the second digit comes as a response to something the individual himself has said.

The third digit refers to what a particular speech comes in response to. Here, again, many of the categories refer to common sense categories needing little or no explanation--i.e., agreement, disagreement, extension, answer, or combination of those. Disconfirmation, a term used extensively in psychotherapy, refers to the complete

¹G. L. Trager. "Paralanguage: A First Approximation," in Studies in Linguistics, 13, 1958, pp. 1-12.

ignoring of something individual A has said to individual B by individual B. It amounts to B saying symbolically by his actions, "you (A) don't exist, given that definition of our relationship." A disconfirmation occurs after a statement has been made which demands a response to it by the other individual and he then does not respond to the demand either by silence, leaving the field, or a disconfirming response. Neither silence nor leaving the field were codable, as silent disconfirmation would require considerable inferential abilities on the part of the coders and leaving the field was restricted by the necessity to complete the interview. Disconfirming responses, on the other hand, were coded--ex.

Wife: . . . well, now that you've heard what I think what do you think?"

Husband: Go on to the next topic!

This interaction would be coded as: 263/145--a female, assertion followed by a question which was an extension of something that came before, followed by a male order which was a disconfirmation.

A topic change, though at first glance potentially overlapping with a disconfirmation, was used to refer to the introduction of a new idea after discussion of the other. In addition, as disconfirmations were limited only to those overt verbal exchanges where a demanded response was requested but ignored, topic changes could refer to

any change in a subject following a speech which did not demand or request a response to it.

The category "other" as a response was used typically in two ways. First, as the last digit in the three digit number of the individual who spoke first. It was also used in conjunction with speech nonfluencies (an 8 in digit two) or unsuccessful attempts to interrupt (a 5 in digit two) where it was impossible to discern agreement, disagreement, extension, etc.

A laughter code of 0 in the 3rd place, accompanied by an 8 in the 2nd place refers to laughter as a response to what the other person has said.

For example, the following interaction would be coded:

Wife: That's a very interesting situation, but I really don't know how I'd handle it, what about you, honey?

Husband: Well, I think that in the case of an emergency we would probably first tune in the radio and listen for directions and at the same time begin to gather up some food . . . (Wife: and clothing . . .) to take to the basement (Wife: we'd have to take blankets) where we'd . . .

Wife: because we'd need the warmth in the basement, and besides the children would need it.

Husband: right, that sounds about right.

Wife: O.K., why don't you turn the page and go on to the next one.

269/124/253/123/253/223/121/236

Thus, we can reduce each speech to a three-digit code and the whole dialogue to a sequenced set of three-digit codes. This allows us to determine frequencies of

interaction units as they vary from normal to abnormal subjects or across socio-economic stratifications, as well as probability estimates of one code being followed by another. In addition to this, it is possible to obtain a relational score or pattern for each dialogue or interaction.

This last alternative can be accomplished by combining pairs of three-digit alternating speaker codes-- i.e., first a 1-- and a 2--; then that 2-- and the next 1--; then that 1-- and the next 2--; etc. Each pair gets assigned to a category representing one of the nine possible combinations of the three categories Bateson developed--one-up, one-down, and symmetrical. These nine possibilities are one-up, one-down $\uparrow\downarrow$; one-up, one-up $\uparrow\uparrow$; one-up, symmetrical $\uparrow S$; one-down, one-up $\downarrow\uparrow$; one-down, one down $\downarrow\downarrow$; one-down, symmetrical $\downarrow S$; symmetrical, one-up $S\uparrow$; symmetrical, one-down $S\downarrow$; and symmetrical, symmetrical SS . The frequency of a particular categories occurrence is tabulated by intering its occurrence for the individual who comes first in the sequence so that a particular interaction might be profiled as:

	Male	Female
$\uparrow\downarrow$	6	1
$\uparrow\uparrow$	3	0
$\uparrow S$	0	0
$\downarrow\uparrow$	0	5
$\downarrow\downarrow$	0	5
$\downarrow S$	0	0
$S\uparrow$	0	0
$S\downarrow$	4	0
SS	2	3

This would be accomplished by following a set of rules for the second and third digits only, listed below.

1. If the second and third digits are identical in the pair of numbers it is SS. This is also true for pairs combining -51, -81, or -21.

2. All -1-'s are coded as ↓ (one-down) except for -12, -15, and -18 which are ↑ (one-up).

3. Codes with a two in the second digit are coded as follows:

21 = ↓ (one-down) (except when rule 1 applies)

22 = ↑ (one-up)

23 = } (one-up) unless preceded or followed by a
 }↑ 23 or a 24 in which case it is coded as S

24 = } (symmetrical)

25 = ↑ (one-up)

26 = ↑ (one-up)

27 = first coding is as a 21; second coding is as a 23.

28 = first coding is as a 22; second coding is as a 23.

29 = ↓ (one-down) unless it is the first speech in the interaction in which case it follows the rules for a 23.

4. All -3-'s and -4-'s are coded as ↑ (one-up).

5. All -5-'s are coded as ↓ (one-down) unless the first digit in the second three-digit number is identical to that of the first digit of the first three-digit number (indicating a successful interruption), in which case the

-5- number is skipped, the score is $\uparrow$ (one-up) and the second three-digit number is used for the next score.

6. All -6-'s are coded as -2-'s the first time and -1-'s the second time.

7. All -7-'s are coded as -1-'s the first time and -2-'s the second time.

8. All -8-'s are coded as $\downarrow$ (one-down).

9. Skip all -9-'s and 000's.

10. A pair combining a -51 and a -52 are coded as -21 and -22.

Based on this coding scheme, the previously coded dialogue would have a relational score of two $\downarrow\uparrow$'s and a $\uparrow\downarrow$ for the female and a $\uparrow\downarrow$, $\uparrow\uparrow$, and $\downarrow\downarrow$ for the male.

One might say that this study will omit much valuable information by analyzing only the audible aspects of these interactions. However, as long as video-tape or "on-the-scene" categorizing of non-verbal behaviors are as obtrusive as they currently are, efforts to code the audible band remain a valuable first step. In addition to this, there is no evidence to indicate what one might gain by also coding the non verbal band of normal communication systems. Until unobtrusive video-tape facilities can be created the coding of all the bands of communication will remain problematic.

The coding form reflects both the communication and interaction concerns as well as those of the small group researcher interested in the leadership and power of

small groups. In fact, with substantial validation of this coding form it may be adaptable to small groups of up to ten or, by adding a fourth digit, up to one hundred. Some of these possibilities will be discussed later.

Analysis Plan

Once data were gathered an inter-rater reliability check was conducted (to be discussed more fully later). Respondents were separated by socio-economic status (high and low) and their discussions separated on the basis of saliance (high, medium and low) or importance as perceived by the individual couple.

Given these data, this author expected to find the following:

1. The amount of time spent discussing these topics will vary inversely to saliance, with more time being spent on low saliant topics.
2. There will be a difference in the interaction patterns utilized by socio-economic classes.
3. There will be less total time and more silence over all topics in the lower class than among the upper class respondents.
4. There will be more interaction pattern variance among the upper class than among the lower class couples.
5. A couple's pattern of interaction will be consistent over topics varying in saliance.

6. Sequences within the patterns of interaction will repeat themselves often enough to be separated out as distinctive patterns--e.g., perhaps like Sluzki and Beavin's theoretical patterns of Stable Complementarity, Stable Symmetry, Asymmetrical Escalation toward One-down and Symmetry, etc.

Summary

Human communication occurs simultaneously at several different levels, along various channels, all of which carry what we call "information." These levels have been previously labeled audible-linguistic, audible-paralinguistic, non-audible paralinguistic or kinesics, and contextual. Some researchers have found it impossible to describe any of these levels, several have attempted to explain one level. Given that there is some interrelation among these levels, this author hopes to administer a stimuli to dyads with-a-history and attempt to describe their communication behavior at both the audible-linguistic and audible paralinguistic levels. The assumption is that the interrelationship of these factors may adequately describe the interaction, determine the nature of the relational communication, and expose some of what might be occurring at the other two levels where progress in analysis is more incomplete than at these levels.

CHAPTER IV

FINDINGS

Introduction

This exploratory study of normal family communication was an attempt to gain a greater understanding of family communication behavior and develop a coding scheme capable of unlocking some of these behaviors for the social scientist. To accomplish this a set of constructs was developed as a result of a review of the literature and new coding procedures were devised to operationalize the constructs.

Though the conceptual base developed by Bateson¹ and refined by Jackson² and Watzlawick³ was considered the most potentially fruitful approach to the family as a system, it still left some large problems, the most fundamental being operationalization. The only operational approach to this point has been Sluzki and Beavin's⁴

¹G. Bateson, op. cit.

²D. Jackson, op. cit.

³Watzlawick, Jackson and Beavin, op. cit.

⁴Sluzki and Beavin, op. cit.

article attempting to operationalize the variables symmetry and complementarity. The results of their efforts were a useful first step, but left out many of the subtler verbal aspects of communication.

In an attempt to overcome these difficulties, a three digit coding scheme, capable of coding (a) the speaker, (b) the speech and (c) the speech as a response to a previous stimulus, was developed and operationalized. This study represents the first use and reliability check on this method of interaction analysis. Used to analyze the discussions of fifteen upper and fifteen lower class husband and wife dyads with children under ten years of age, as they discussed and arrived at decisions on three ambiguous topics, the coding scheme helped uncover many significant relationships to be discussed later.

The study lasted for most of the month of April, 1970, although the fifteen upper class couples were obtained within the first two weeks. The sample was obtained by door-to-door interviewing in neighborhoods classified as upper and lower class during previous community studies. Nonetheless, subjects were split into upper and lower class categories on the basis of income (upper class being over \$8,000 per year), education (upper class having some college education), and job title and description.¹ Dwelling unit turned out to be an

¹E. Bergel, op. cit.

excellent indicator of social class. No "class" deviants were found.

To maintain a comparable set of couples, only American, Caucasian, married couples were allowed in the sample. In addition, those couples responding affirmatively to the question: "Have you or your family ever obtained psychiatric or psychotherapeutic assistance--either individually, or as a family?" were eliminated from the sample.

To obtain the thirty couples finally used in this study, seventy-three upper class homes and well over one hundred and fifty lower class homes were approached. Of the upper class homes, twenty-eight upper class couples made appointments resulting in the taping of eighteen couples. Three upper class couples were eliminated because of previous contact with a psychiatrist or other mental health agent. Of the lower class families, though some thirty-four agreed to appointments for taping, only sixteen actually participated. One lower class couple was not used because of psychiatric contacts.

Of the thirty remaining couples, each was instructed to discuss three topics, as outlined in Chapter III. They were to discuss the relevant alternatives and arrive at a decision regarding what they as a couple or as individuals would do to handle these situations. The three topics--Civil Defense planning, Sex Education, and child

Television viewing times--were later rank ordered by importance or salience.

Table 1 gives the frequencies for ranking these topics after the discussions.

Table 1.--Topic Salience by Class.

	Upper Class			Lower Class		
	Hi Salient	Middle Salient	Low Salient	Hi Salient	Middle Salient	Low Salient
Civil Defense	0	1	14	2	7	6
Sex Education	8	7	0	11	3	1
T.V. Viewing	7	7	1	2	5	8

Part of the reason for the higher incidence of ranking Civil Defense as middle salient and high salient among lower class respondents, was because of two major tornado alerts during the last two weeks of interviewing. These last two weeks were spent entirely in the lower class communities. The resultant shift in attitude was probably primarily caused by this change in their environmental information. It was originally believed that Civil Defense would be the low salient topic for the majority of the respondents. This belief was based on data gathered

in 1969 for the Office of Civil Defense.¹ Having made the earlier decision to rate all the topics of similar salience level together, rather than forcing them into some preconceived ranking, became all the more desirous.

Coder Reliability Check

After approximately one-half of the tapes were obtained coding began, based on the three-digit coding scheme (see Chapter III for full explanation). After about two hours of training, the four coders were sent off in pairs of two to independently rate three tapes (nine dialogues).

Three reliability checks were made for these nine dialogues--a unitizing, categorizing and total reliability check. The unitizing check on just the first digit or sex code, aimed primarily at determining if the coders agreed on the number of alternating speeches. This unitizing check approached the 100% level as only two speeches in two hundred and seventy five speeches were not agreed upon. The categorizing reliability check, used to determine if coders were using identical coding categories, resulted in significantly positive results, as well (see Table 2). In fact, summing over the nine dialogues for a

¹"Home Fallout Protection Survey for the State of Michigan--1969," A study conducted for the Office of Civil Defense by the Department of Communication, publ. April 1970.

total reliability measure yielded a proportion of .9163 indicating a high coder reliability. In addition, coders reported this form to be considerably easier to handle, more precise and retaining more information than the Sluzki - Beavin method which was initially tried, though unsuccessfully.

Table 2.--Categorizing Reliability Check.

		Tape 1 Lower Class	Tape 2 Lower Class	Tape 3 Upper Class
High Salient	Coder Frequencies	20	25	57
		19	24	52
	Proportion	.95	.96	.91
Middle Salient	Coder Frequencies	1	20	79
		1	17	71
	Proportion	1.0	.85	.89
Low Salient	Coder Frequencies	3	9	61
		3	9	56
	Proportion	1.0	1.0	.91

Overall reliability - .9163

Description of Normal Population "Speeches"

After all tapes were sequentially coded (see Chapter III), a frequency count of speech categories was made.

This is shown in Table 3 and represents the occurrence of various types of statements in the normal population, irrespective of social class, sex, or topic salience. This table is cumulative over the three topics.

As indicated on the table, 31% of the statements made by respondents were assertion-extensions (code 23), or in more common language--"picking-up on what someone else was saying." Silence (code 00) accounted for another large segment of the interaction frequencies (9% of the total codes). Twelve percent of the speeches were what have been labeled "supportive,"¹ but what this author called agreement or reinforcement. This 12% was divided equally between assertion-agreements and talking-over agreements. The category 29 (5%) indicates that primarily the first person to speak asserted something rather than asking a question, giving an instruction, etc. Of the other frequencies with a high N, we find almost 5% of the speeches were assertions-in disagreement (code 22): 4% were questions of a direct nature (code 19); while another 4% were agreements which were neither talking-over nor an assertion, but primarily consisted of statements following another's speech on the order of "Right," "uh huh," "Sure," etc. At the other end of the continuum, it is interesting to note the low frequency of occurrence, in the normal population, of all orders and instructions, which sum to only about 1% of the total.

¹M. Komarowsky, Blue-Collar Marriage, New York: Random House, 1962

Table 3.--Normal Population Code Frequencies.

Last 2 Digits of 3-Digit Code		Frequency	Percentage
11	Question-in-Agreement	2	.11
12	Question-in-Disagreement	9	.50
13	Question-as-Extension	20	1.12
16	Question-as-Topic Change	8	.44
19	Question-is-Other-Typical	72	4.04
21	Assertion-in-Agreement	108	6.06
22	Assertion-in-Disagreement	83	4.66
23	Assertion-as-Extension	544	30.56
24	Assertion-in-Answer	66	3.70
25	Assertion-as-Disconfirmation	31	1.74
26	Assertion-as-Topic Change	47	2.64
27	Assertion-in-Agreement-and-Extension	48	2.65
28	Assertion-in-Disagreement-and-Extension	15	.84
29	Assertion-is-1st statement or other	88	4.94
20	Assertion-and-Laughter	2	.11
32	Instruction-in-Disagreement	1	.05
33	Instruction-as-Extension	4	.22
35	Instruction-as-Disconfirmation	1	.05
36	Instruction-as-Topic Change	3	.16
42	Order-in-Disagreement	1	.05
45	Order-as-Disconfirmation	1	.05
46	Order-as-Topic Change	5	.28

Table 3.--Continued.

	Last 2 Digits of 3-Digit Code	Frequency	Percentage
49	Order-is-Other	2	.11
51	Talking-Over-in-Agreement	107	6.01
52	Talking-Over-in-Disagreement	33	1.85
53	Talking-Over-as-Extension	62	3.48
54	Talking-Over-in-Answer	1	.05
55	Talking-Over-as- Disconfirmation	17	.95
56	Talking-Over-as-Topic Change	7	.39
57	Talking-Over-in-Agreement- and-Extension	14	.78
59	Talking-Over-but-Unintelligible	32	1.79
50	Talking-Over-and Laughing	1	.05
61	Assertion-in-Agreement, followed by a Question	1	.05
62	Assertion-in-Disagreement, followed by a Question	1	.05
63	Assertion-as-Extension, followed by a Question	11	.61
64	Assertion-as-Answer, followed by a Question	1	.05
65	Assertion-as-Disconfirmation, followed by a Question	1	.05
66	Assertion-as-Topic Change, followed by a Question	3	.11
67	Assertion-as-Agreement and Extension, then a Question	1	.05
68	Assertion-as-Disagreement and Extension, then a Question	1	.05

Table 3.--Continued.

Last 2 Digits of 3-Digit Code		Frequency	Percentage
69	Assertion-and-Question-as-Other	7	.33
73	Question-and-Assertion-in-Agreement	10	.51
76	Question-and-Assertion-as Topic Change	2	.10
79	Question-and-Assertion/Other	6	.33
81	Statement-of-Agreement	79	4.43
82	Statement-of-Disagreement	2	.10
83	Statement-as-Extending	5	.25
87	Statement-in-Agreement and Extension	3	.15
80	Laughter-in-response-to-other	17	.93
99	Laughter-was-Self-Induced	12	.66
90	Laughter-for-both	7	.39
00	Silence	148	8.39

If we sum all assertion statements (all codes that are -2-'s), we find they account for approximately two-thirds of the speeches (62%). Likewise, all talking-over statements (all codes that are -5-'s), account for about one-sixth (.17%) of the utterances, and questions (all codes that are -1-'s) account for about one-fourteenth (7%) of them. By summing the occurrence of agreement over code categories (i.e., 11+21+51+61+81=16.66%) and

disagreement over code categories, we find the ratio of agreement to disagreement in the couples is two to one. This last statement, however, ignores the relational aspect of the last two digits which rules out placing them together for anything other than a descriptive tendency.

The Significance of Time

Prior to discussing class, salience and sex differences it should be noted that time spent discussing these topics may have become a factor in differences in frequency of code occurrence by class. A treatment by subjects-replications analysis of variance¹ on the discussion topic times split by social-class and topic salience, indicates a significant difference in length of time talked by the two social-classes, but no significant difference over topic salience. This difference in length of time talked indicates that, on the whole, the upper class couples talked 1.5 times longer than lower class couples, irrespective of topic salience. Later, we will see that this matches quite closely to the factor representing the difference between the total number of speeches coded by social class (speech factor=1.58). Therefore, though topic salience indicated no time difference, class does indicate a time differential of approximately 1.5 to 1.6 and will be taken into account for subsequent analysis.

¹Quinn McNemar, Psychological Statistics, John Wiley & Sons, Inc., N.Y., 1962.

Table 4.--Length of Time Talked.

		Social Class		
		Lower	Upper	Factor Diff.
Topic Salience (Averages)	High	84.80	132.60	1.71
	Middle	92.00	107.20	1.20
	Low	70.86	124.33	1.56
	Total Speeches	687	1090	1.58

F Col = 10.6010 significant at the .05 level

F Row = 0.3283 not significant

Average time factor = 1.49

At this point, however, one should note that it is possible to discuss these findings on several different conceptual bases. One can refer to what happened in thirty dyadic interactions over ninety dialogues and/or one can refer to the 1,777 coded alternating speeches, and/or the sum total of sequentially paired speeches (as we shall do later). I will do each of these and attempt to demonstrate the differences resulting from these viewpoints.

Saliency Findings

Table 5 below indicates the frequencies by saliency and chi-squares for code categories within a social class. As can be seen from the table, there is no significant difference in code frequencies over topics varying in

Table 5.--Code frequencies by saliance.

Code Categories	Lower Class				Upper Class			
	High	Middle	Low	χ^2	High	Middle	Low	χ^2
11	0	0	0	.00	1	0	1	.00
12	2	2	2	.00	0	1	2	.00
13	1	2	0	.16	4	6	7	.37
16	0	0	0	.00	4	2	2	.22
19	14	16	11	.92	10	10	11	.00
21	23	16	11	4.37	19	17	22	.65
22	14	27	24	4.29	6	4	8	.79
23	73	57	60	2.28	115	108	131	2.35
24	12	12	9	.25	8	11	14	1.16
25	1	3	0	1.6	12	9	6	1.41
26	4	7	5	.39	8	6	17	5.44
27	3	3	3	.00	15	17	7	3.44
28	1	2	4	.30	3	2	3	.00
29	13	15	11	.61	15	16	18	.13
20	0	0	0	.00	1	0	1	.00
32	0	1	0	.00	0	0	0	.00
33	1	1	1	.00	0	1	0	.00
35	0	1	0	.00	0	0	0	.00
36	0	0	0	.00	1	1	1	.00
42	0	0	0	.00	0	0	1	.00
45	0	0	1	.00	0	0	0	.00
46	0	0	0	.00	2	3	0	.13
49	1	0	0	.00	0	1	0	.00
51	17	15	14	.33	19	22	20	.23
52	4	12	8	3.09	2	3	4	.00
53	8	4	4	1.15	16	16	14	.17
54	0	0	0	.00	0	1	0	.00
55	0	0	0	.00	3	5	9	2.23

salience. With a required Chi-square level of significance being 5.99 at the .05 level, only silence (code 00) for the upper class reaches that level and this appears to be primarily the result of a low cell size for middle salient topics. The net result of this is an indication that dyads tend to use the same content codes with a similar frequency regardless of topic salience. This would indicate support for the expectation of consistency in the way dyads with a history relate, at least at this basic content-code level.

Class Findings

To this point, we have determined that there is a time difference in discussions by class and no content-code difference by salience. In discussing the frequency of codes by class, I will refer to adjusted lower class frequencies. These frequencies have been adjusted by a factor of 1.6, suggesting that our base of analysis here is the total number of speeches. Utilizing a Chi-square test of significance for this ordinal data (with Yate's Correction when cell size dropped below 15), yields eighteen significant and two near significant differences by class (see Table 6). What are these differences?

First, questions: upper class dyads asked more topic changing questions than lower class dyads, while lower class dyads asked more general questions (either beginning, or asking a question related to what was being

Table 6.---Code frequencies by class.

Code Categories	Upper Class Frequencies	Lower Class Frequencies	Adjusted (1.6) Frequencies	Chi-square
11	2	0	0	.00
12	3	6	9.6	2.48
13	15	5	8.0	1.56
16	8	0	0	6.12*
19	31	41	65.6	12.39*
21	58	50	75.0	2.17
22	18	65	97.5	54.72*
23	354	190	304.0	3.79
24	33	33	52.8	4.59*
25	27	4	6.4	12.70*
26	31	16	25.6	.51
27	39	9	14.4	11.33*
28	8	7	11.2	.53
29	49	39	62.4	1.61
26	2	0	0	.50
32	0	1	1.6	.00
33	1	3	4.8	2.49
35	0	1	1.6	.00
30	3	0	0	3.00
42	1	0	0	.00
45	0	1	1.6	.00
46	5	0	0	5.00*
49	1	1	1.6	.00
51	61	46	73.6	1.18
52	9	24	38.4	18.24*
53	46	16	25.6	5.81*
54	1	0	0	.00
55	17	0	0	17.00*
56	7	0	0	7.00*

Table 6.--Continued.

Code Categories	Upper Class Frequencies	Lower Class Frequencies	Adjusted (1.6) Frequencies	Chi-square
57	13	1	1.6	8.90*
59	27	5	8.0	10.31*
50	1	0	0	.00
61	1	0	0	.00
62	0	1	1.6	.00
63	4	7	11.2	3.41
64	1	0	0	.00
65	1	0	0	.00
66	1	2	3.2	3.20
67	0	1	1.6	.00
68	0	1	1.6	.00
69	3	4	6.4	1.23
73	6	4	6.4	.00
76	2	0	0	.50
79	3	3	4.8	.00
81	62	17	27.2	13.58*
82	1	1	1.6	.00
83	4	1	1.6	1.03
87	3	0	0	1.33
89	23	2	3.2	14.96*
80	9	8	12.8	.66
99	11	1	1.6	7.01*
90	7	0	0	5.39*
00	78	70	112.0	6.08*

*3.84 = significant at the .05 level with 1 df.

said, though not agreement, disagreement, extension, topic change, or disconfirmation) than did upper class dyads. In fact, there is a significant difference overall between lower and upper class question-asking with lower class subjects doing more of it (a ratio of 83.2 to 59).

While there is no difference between classes on assertion-agreements, there is a very large difference in assertion-disagreements. In this sample, lower class subjects disagreed with their spouses almost five-and-one-half times as much as upper class spouses. Perhaps there is some support here for the belief that there are more arguments in lower class homes, or for the argument George Bach raises that increased education makes us think that fighting is bad resulting in fewer upper class disputes.¹ Additional support for these statements may be indicated by the near significant level of assertion-extensions (code 23) among upper class participants, using the adjusted figures. It is a clearly significant chi-square without adjustment.

Though the upper class subjects do not disagree as often, and do extend more often, than lower class subjects, they have a significantly greater (four times as great) rate of assertion-disconfirmations (code 25) than do

¹G. Bach and P. Wyden, The Intimate Enemy. William Morrow and Co., N.Y., 1969.

lower class pairs. This finding dovetails with the fact that lower class subjects tend to give assertion-answers (code 24) significantly more often than do upper class subjects. As disconfirmations indicate one person sending a relational message to his or her partner that they "do not exist" given the preceding definition of the relationship, this is perhaps more powerful than mere rejection in displaying disagreement. In fact, if done habitually, some therapists believe it can lead to schizophrenia or other abnormal behaviors.

Other significant findings indicate that the lower class does more of the following: (1) talking-over in disagreement (code 52); (2) assertions followed by questions from the same individual (code 63); and (3) silence. On the other hand, upper class dyads display more of the following behaviors: (1) assertions which first agree and then extend (code 27); (2) topic-changing orders; (3) talking-over of a variety of kinds including (a) extensions (code 53), (b) disconfirmations (code 55), (c) agreement followed by extension (57), and (d) mumbles or filled hesitation pauses (code 59); (4) statements of agreement that are neither talking-over nor assertions (i.e., "right," "sure," "yup," etc.) (code 81); (5) unintelligible utterances (code 89); and (6) laughter of both the self-induced and both laughing kinds (codes 99 and 90).

All this seems to indicate that members of these two social classes do pragmatically different things when they communicate with their spouses. There appears to be more overt disagreement in lower class dyadic discussions and more competition to speak, more development of an idea by extending what another has said, and more covert disagreement in upper class dyadic interactions. Though one might speculate as to which aspect of social class--education, income or job type--contributes most to these differences, the point is that that combination of elements which distinguishes the two broad socio-economic classes can also be distinguished on a socio-interaction basis.

Sex by Class Findings

At this point, frequencies are distinguished and compared by both sex and class. Once again our total N is the number of exchanges, thus necessitating adjusting the lower class figures by 1.6. As a check, I ran both adjusted and unadjusted Chi-squares. As a result of using adjusted figures, no unadjusted significant relationships are lost and three adjusted significant relationships, all female, are gained (codes 219, 222, and 224). Similarly, for the males only one unadjusted significant relationship is lost (code 123) and one significant adjusted relationship is acquired (code 152). Silence (code 00) also becomes significant when adjusted frequencies are used.

As can be seen from Table 7, the significant sex by class findings for males indicate that lower class males: (1) tend to ask more questions (code 119); (2) assert in disagreement more often (code 122); (3) disagree and extend on that disagreement more often (code 128); and (4) talk-over in disagreement (code 152) more frequently than their upper class counterparts. In addition, upper class males significantly more often than lower class males: (1) make disconfirming assertions (code 125); (2) topic-changing assertions (code 126); (3) assertions which agree with and extend what came before (code 127); (4) extend while talking-over (code 153); (5) disconfirm while talking-over (code 155); (6) agree and extend while talking-over (code 157); (7) mumble or say "well, but," "and, maybe," etc., during a talking-over speech (code 159); (8) agree, but little else, to fill the spaces (code 181); (9) issue more unintelligible comments (code 189); and (10) laugh more at their own statements (code 199) (either from the content, as a tension release, and/or a disqualification).

As for the lower class females in this sample, they (1) asked significantly more questions (code 219); (2) used more assertion agreements and assertion disagreements (codes 221 and 222); (3) answered more questions (code 224); and (4) disagreed while talking over (code 252) more frequently than their upper class female

Table 7.--Significant sex by class findings.

Male Code Categories	Lower Class	Adjusted (1.56) Lower Class	Upper Class	Adj. χ^2	(Unadj. χ^2)
119	21	32.76	15	3.30	(1.00)
122	28	43.68	8	24.63	(11.11)
123	113	176.28	183	.125	(16.55)
125	1	1.56	11	6.00	(6.75)
126	5	7.8	21	6.05	(8.65)
127	5	7.8	19	4.68	(7.04)
128	6	9.36	3	3.27	(.44)
152	11	17.16	6	5.38	(.94)
153	4	6.24	23	9.61	(12.0)
155	0	0	9	7.11	
157	0	0	11	9.09	
159	3	4.68	15	5.45	(6.72)
181	10	15.6	31	5.09	(10.75)
189	2	3.12	13	6.06	(6.66)
199	0	0	7	5.14	
000	70	109.2	78	5.20	(0.43)
Female Code Categories	Lower Class	Adjusted (1.62) Lower Class	Upper Class	Adj. χ^2	(Unadj. χ^2)
219	20	32.40	16	5.56	(.44)
221	34	55.08	32	6.12	(0.00)
222	37	59.94	10	35.66	(15.51)
223	77	124.74	171	7.24	(35.63)
224	16	25.92	13	4.29	(0.31)
225	3	4.86	16	5.95	(7.58)
227	4	6.48	20	6.90	(9.37)
252	13	21.06	3	13.56	(5.06)
253	12	19.44	23	0.30	(3.45)
255	0	0	8	6.12	
259	2	3.24	12	5.04	(5.78)
281	7	11.34	31	15.04	(13.92)
289	0	0	10	8.10	

3.84 = significance at the .05 level with 1 df.

counterparts. The upper class women utilized the following codes significantly more often: (1) assertion-extension (code 223); (2) assertion-disconfirmation (code 225); (3) assertion in agreement and extension (code 227); (4) disconfirmation while talking-over (code 255); (5) mumbling while talking-over (code 259); (6) agreeing but nothing more, though not talking-over (code 281); and (7) more mumbling (code 289).

A treatment by levels analysis of variance¹ test of significance was conducted to compare males and females across class on codes 19, 22, 52, 25, 27, 55, 59, 81, 89, and 26. Several of these indicated main effects but no interaction effects. These indicated that both lower class couples display more question-asking, assertion-disagreement and talking-over disagreement than upper class couples. Similarly, upper class couples tend to display more disconfirming assertions, assertions in agreement and extension, talking-over disconfirmations, talking-over mumbling, flat statements of agreement and general mumbling than lower class couples.

The only significant interaction effect was for code 26--assertion-topic-changes. Here the finding was that more upper class males exerted themselves in this

¹W. L. Hays, Statistics for Psychologists, Holt, Rinehart and Winston, N.Y., 1963.

fashion, while a similar pattern was evident among lower class females (see Table 8).

Table 8.--ANOVA Table for Code 26.

	SS	df	MS	F	F sig.	F Critical Value	Significant
Treatments	3.75	1	3.75	6.70	.025	5.29	Yes
Levels	.42	1	.42	.75	.05	4.00	N.S.
Interaction	4.83	1	4.83	8.63	.01	7.08	Yes
Within	31.19	56	.56				

Successive Interactions

To this point, we have been concerned with the frequency of occurrence of individual code categories. These are partially relational in the sense that the third digit in the code refers to a meta-communicational aspect (agreement, disagreement, etc.) of the interaction. As indicated in Chapter III, we must look at least at pairs of statements --exchanges-- for a relational index. A frequency count of pairs of statements, adjusted to account for the social class time differential was taken. In all, there were 391 different pairs of codes which occurred at least once in one of the classes, out of an 89 by 89 matrix. Of these 391 paired categories, twenty-two yielded significant

Chi-squares prior to adjusting the frequencies by a factor of 1.6. After adjusting them, only fourteen of these pairs remained significant, but four new pairs were added, resulting in eighteen significant and three near significant chi-squares (see Table 9).

Using the adjusted frequencies, there is an indication that lower class husband-wife dyads, significantly more often than their upper class counterparts, tend to:

- (1) follow a two second silence with silence (have extended periods of silence (code pair 00-00));
- (2) answer more general-type questions (code pair 19-24);
- (3) follow assertion-disagreements with assertion-disagreements, or with silence (code pairs 22-22 and 22-00);
- (4) follow assertion-extensions with an assertion-disagreement, or a talking-over disagreement (code pairs 23-22, and 23-52);
- (5) follow discussion-opening assertions with an assertion agreeing with what was said (code pair 29-21);
- (6) follow talking-over disagreements with assertion extensions (code pair 52-23);
- and (7) have joint dyadic talking-over in agreement when it occurs (code pair 51-51).

This gives us a picture of the over-riding tendencies of lower class discussions, though admittedly over-simplified. One could characterize them as assertions followed by a set of disagreements and further assertions interspersed with silence, with "rapid-fire" talking-over periods of both disagreement and agreement.

Table 9.--Frequencies of paired interactions (significant only).

Code Categories	Lower Class Frequencies	Adjusted Lower Class Frequencies	Upper Class Frequencies	Chi-Square	Adjusted Chi-Square
00-00	19	30.4	9	2.89	10.56*
19-24	25	40	18	1.14	8.34*
21-53	0	0	7	5.14*	5.14*
22-00	8	12.8	1	4.00*	8.45*
22-22	18	28.8	0	16.05*	26.83*
23-00	15	24	31	5.56*	.89
23-22	16	25.6	8	2.04	8.20*
23-23	44	70.4	65	4.04	.14
23-27	3	4.8	13	5.06*	3.77†
23-51	11	17.6	24	4.83*	.70
23-52	13	20.8	3	5.06*	11.85*
23-53	7	11.2	23	7.50*	4.0*
23-57	0	0	10	8.10*	8.10*
23-59	1	1.6	14	9.60*	8.87*
23-81	10	16	26	7.11*	2.38
27-23	0	0	7	5.14*	5.14*
29-21	5	8	1	1.50	4.00*
51-23	28	44.8	51	6.89*	.28
51-51	7	11.2	1	3.12	6.93*
52-23	14	22.4	4	4.50*	12.82*
53-23	12	19.2	30	7.71*	2.37
55-23	0	0	7	5.14*	5.14*
57-23	0	0	10	8.10*	8.10*
59-23	3	4.8	20	11.13*	8.13*
81-23	10	16	28	8.52*	3.27†
89-23	0	0	6	4.16*	4.16*

*3.84 = significant at the .05 level with 1 df.

In the other direction, the upper class dyads studied, as a whole, tended to have significantly more: (1) assertion-agreements followed by talking-over extensions (code pair 21-53); (2) assertion-extensions followed by both talking-over in agreement and extending, and non-substantive talking-over (code pairs 23-27 and 23-59); and (3) assertion-extensions following assertions which agree and extend, disconfirming unsuccessful interruptions, talking-over in agreement and then extending, talking-over but saying nothing substantive, and saying nothing substantive though not talking-over (code pairs 27-23, 55-23, 57-23, 59-23, and 89-23, respectively). Using these adjusted statistics, we might characterize upper class dyadic interactions as supportive and extending. But with the disconfirmations that exist, there is strong convert control.

Prior to adjusting the frequencies, upper class couples could have also been portrayed as having a greater tendency to: (1) follow assertion-extensions by silence (code pair 23-00); (2) follow assertion-extensions with assertions in agreement and extending what preceded it (code pair 23-27--this pair has a near significant Chi-square of 3.77 after adjustment); (3) follow assertion-extensions by talking-over in agreement or general

agreement (code pairs 23-51 and 23-81); (4) follow both talking-over in agreement and talking-over extensions with assertion-extensions (code pairs 51-23 and 53-23); and (5) follow general agreements with an assertion-extension (code pair 81-23--this pair also has a near significant chi-square (3.27) after adjustment).

Based on these data, it is possible to begin to perceive different discussion styles in the two social classes. The differences in what is said in response to some other statement as the stimulus, indicate that the lower class discussions had more silence and more disagreements aired while upper class dyads had more assertion-extensions preceded or followed by a variety of unsuccessful interruptions or talking-over.

One of the questions arising from this study was whether or not upper class dyads had a greater repertoire of responses or speech possibilities than the lower class dyads. To determine this, a distribution of the occurrence of code frequencies was made. Starting with an 89 by 89 matrix in which each cell represents a pair of codes, the number of incidences of those ranges from zero to sixty-five. Zeroes were only scored when a frequency existed for that code pair for one of the two classes. The frequency of code pairs with these cell values in the lower class, were anywhere from zero to two hundred and ten times and in the upper class codes were used anywhere from zero to one hundred and seventy-four. Variances were calculated for both of these distributions. The lower class variance was calculated to be 1604.3352, while the upper class variance was 1141.9450. The resulting comparison yielded an F of

1.4049, exceeding the .05 level of significance ($F=1.35$). This indicates that the upper class dyads displayed the use of a greater repertoire of speech pairings, or in other words, had more variability in paired patterns than the lower class participants, even though the lower class variance is higher (a result of two hundred and ten instances of zero as compared to seventy-four instances of zero, for a code pair, for the upper class respondents. (See Figure 1 for a visual comparison of the two classes.)

Relational Analysis

Utilizing the recoding rules as outlined in Chapter III each of the ninety dialogues was recoded. Frequencies were obtained for males and females in both classes over the nine relational categories ($\uparrow\downarrow$, $\uparrow\uparrow$, $\uparrow S$, $\downarrow\uparrow$, $\downarrow\downarrow$, $\downarrow S$, $S\uparrow$, $S\downarrow$, SS). Table 10 gives the resulting frequencies.

Using this data chi-square tests of significance were made (using Yate's Correction when necessary) to determine if sex, salience or class made a difference in relational communication. By comparing males to females across topic salience (taking each of the relational codes separately), there is only one significant relational category. This one relational category ($\downarrow\uparrow$) indicates that in the upper class, males tended to contribute more $\downarrow\uparrow$ to the significant chi-square, primarily in the high salience topic (see Table 11).

These findings begin to indicate support for the expectation that at a relational level couples are consistent over topics varying in salience. Further support

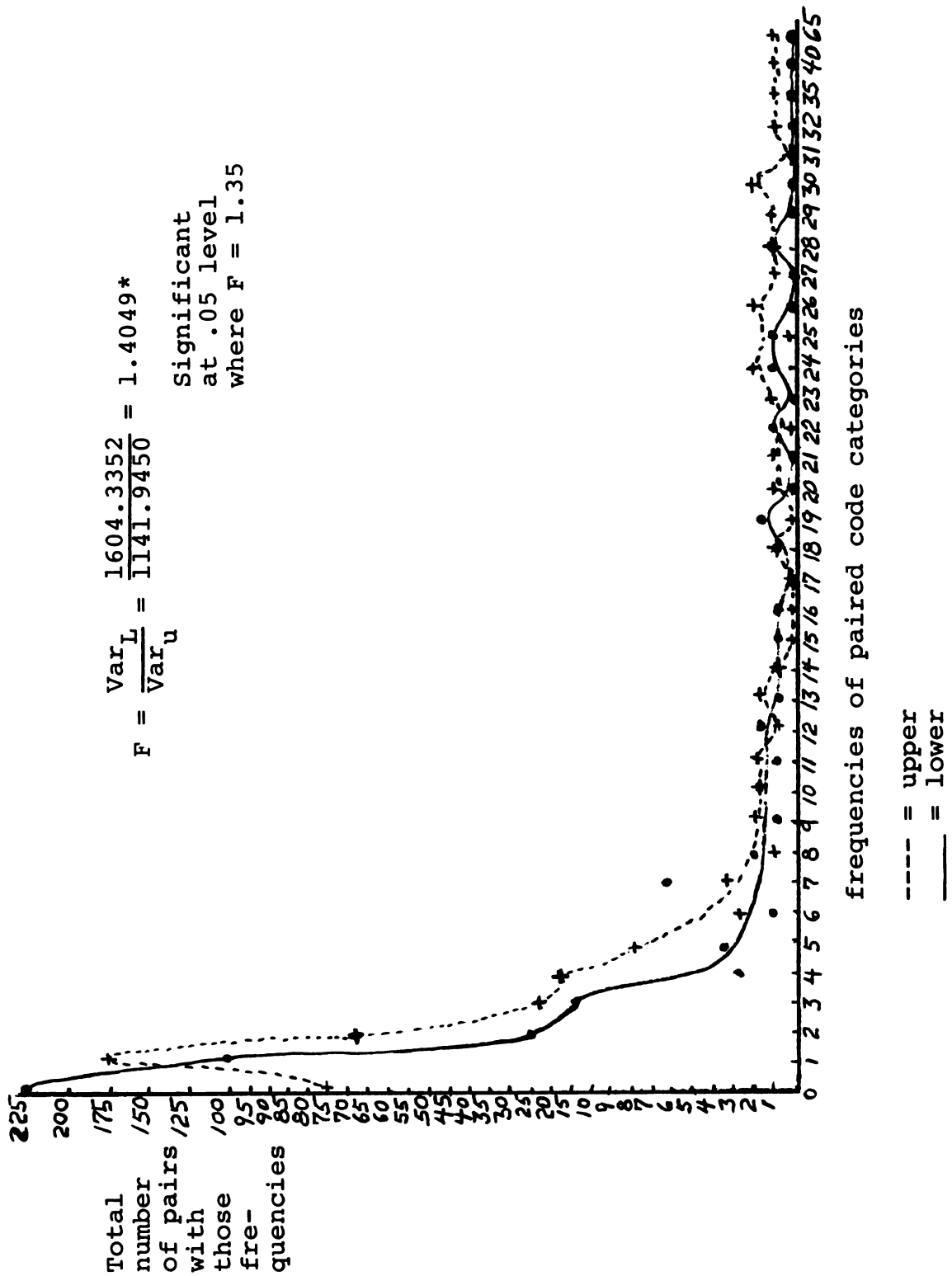


Figure 1.--Comparison of class variances (an approximation).

Table 10.--Relational code frequencies by class and sex.

Relational Code	Lower Class			Adjusted Total	Upper Class		
	Males	Females	Total		Males	Females	Total
High Saliance							
↑↑	34	30	64	1.44 = Factor			
↑↑	12	10	22	48	45	93	
↑S	0	0	0	11	19	30	
↑↑	21	33	54	0	5	5	
↑↑	10	7	17	47	23	70	
↑S	0	0	0	7	15	22	
S↑	0	0	0	0	2	2	
S↑	0	0	0	0	0	0	
SS	13	12	25	1	0	1	
Middle Saliance							
↑↑	30	35	65	20	19	39	
↑↑	22	13	35	1.37 = Factor			
↑S	0	0	0	45	49	94	
↑↑	24	33	57	16	19	35	
↑↑	8	8	16	0	0	0	
↑S	0	0	0	38	37	75	
S↑	0	0	0	8	9	17	
S↑	0	0	0	0	0	0	
SS	10	7	17	0	0	0	
Low Saliance							
↑↑	20	21	41	0	0	0	
↑↑	20	17	37	24	16	40	
↑S	0	0	0	2.02 = Factor			
↑↑	20	18	38	59	47	106	
↑↑	5	6	11	18	16	34	
↑S	0	0	0	0	5	5	
S↑	0	0	0	32	39	71	
S↑	0	0	0	15	20	35	
SS	10	12	22	0	5	5	
				1	0	1	
				0	0	0	
				0	0	0	
				24	21	45	
				44.44			

Table 11.--Male-Female Comparison over Topic Salience, by Class.

	Relational Codes	Chi-square
Lower Class	↑↓	.636
	↑↑	.666
	↓↑	1.790
	↓↓	.140
	SS	.280
Upper Class	↑↓	1.210
	↑↑	1.710
	↓↑	7.486
	↓↓	.473
	SS	.673

5.99 = .05 level of significance with 2 df.

is given this expectation with the results of a whole pattern within class comparison across topic salience. Using the totals for the major five relational categories (the other four categories occurring too infrequently to be included), a three-by-five matrix was tested against the Chi-square distribution for each class. It required a Chi-square of 15.51 or better for it to achieve the .05 level of significance. Neither lower (12.95) nor upper (6.32) class achieved significance. Therefore, we may draw the conclusion that salience apparently does not affect dyadic relational communication. Though salience and therefore content may change, in the aggregate, there is relational consistency within each of the two classes of people studied. This offers support for a major

assumption in therapy, expressed by Watzlawick and others, that there is relational stability in groups with-a-history. (Individual consistency will be discussed in the next section.)

Using the adjusted total frequencies for the lower class dyads, a class comparison of relational patterns was also conducted. The results indicate that upper and lower class participants discussed the high salient topic in about the same relational manner, the middle salient topic somewhat differently though not significantly so, and the low salient topic significantly different. Requiring a Chi-square of 9.49 for significance with four degrees of freedom at the .05 level, the class-pattern comparison across topics yielded Chi-squares of .58, 7.25, and 21.02, respectively.

As the above results came from a whole pattern analysis, individual relational code analyses were made across class to determine what contributed to this difference. The major contributions to this increasing Chi-square came from the SS category in the middle salient topic ($4.41 = \chi^2$; 3.84 needed for significance), with upper class dyads exhibiting more of this symmetrical behavior, and the $\uparrow\uparrow$ category in the low salient topic ($15.26 = \chi^2$; 3.84 needed for significance), with lower class dyads demonstrating more of this competition toward one-up behavior.

It is interesting to note that some of those who have studied these relational patterns would suggest that the ↑↑ relationship, because it is unstable will eventually resolve itself into a stable complementary relationship with one party being in meta-complementary control--i.e., "I'll let you control me." Given the emergence of this difference in the way classes relate under the conditions of this experiment (one contact and one interaction situation type), we may want to pursue the matter of inter-class relational differences in future research. As of now, we can conclude that there is consistency within a class across both sex and topic salience, a difference in content-code frequencies across class and there may be a relational difference in the way the two classes communicate.

Individual Consistency over Topic Salience

To determine the parameters of "normal" family communication in the dyad, it was felt that both aggregate (above) and individual data were necessary to demonstrate consistency of relational communication over topic salience. This would be necessary for us to predict not only to a mass tendency in the general population, but also to individual dyads within it. To accomplish this each of the thirty males and females were checked as to the consistency of their relational communication over the three topics.

Each relational code was compared across topic salience using a chi-square test with Yate's correction because of generally low cell size. The chi-square tests were run both by individual relational categories across sex (a series of two-by-three matrixes) and by using total relational scores, the whole pattern for each couple across topic salience (thirty matrixes varying in size from two-by-three to five-by-three).

Taking the individual relational code comparisons first, very few significant relationships were found--among lower class males and females, only seven significant or near significant relationships out of one hundred and five chi-squares and only twelve significant or near significant differences out of one hundred and seventeen chi-squares in the upper class dyads. This is about what one would expect to find by chance alone. Taking the whole dyadic pattern for each couple and checking its stability over the discussion topics resulted in only one significant relationship among the thirty couples tested. Both of these results reinforce the belief that there is stability in relational communication in groups-with-a-history. It is interesting to note that the one couple whose relational pattern analysis attained significance ($19.1585 = \chi^2$; 15.51 needed for significance with 8df) also contributed the largest number of individual relational code significant chi-squares (4). This same couple will later be described as having a "fluid" relationship--a

pattern which Sluzki and Beavin¹ describe as the ideal state for normals.

Individual Cases

One of the concerns in developing a system capable of coding relational interactions, is the ability to discern emerging patterns. Though the data indicate that all but a very small percentage of the interactions of thirty dyads studied were consistent over topics, it is yet another problem to begin to label them.

Sluzki and Beavin² refer to seven theoretical patterns, while Watzlawick et al.³ refer to two relational and two meta-patterns. Identifying a pattern is somewhat analogous to understanding music theory. In both cases one is concerned with variations on a theme, rhythm, change of key and endings. In relational communication we begin with a pair of statements, or an exchange, and watch for repetition or variation around that theme. In a more therapeutic setting, one might also watch for more unique orchestrations such as patterned disqualifications, habitual disconfirmations, or some combination of these. I believe that as our understanding of relational communication

¹Sluzki and Beavin, op. cit.

²Sluzki and Beavin, op. cit.

³Watzlawick, Jackson, and Beavin, op. cit.

grows, this dissertation being but a small step along the way, that this analogy will become more interesting. Some of the more basic patterns are discernable from the data gathered for this study.

To take the most obvious of patterns first--stable complementarity--we would find, for example, an exchange in which participant A was both first to speak and rated one-up ($\uparrow$), that participant B was one down ($\downarrow$). In a stable complementary relationship this will be true every time participant A is coded first, and the opposite will hold true whenever participant B is taken first in the exchange ($\downarrow\uparrow$).

An example of this type of relationship comes from one of the lower class dyads. In their discussion of the high salient topic the female was scored $\uparrow\downarrow$ five times while the male was scored $\downarrow\uparrow$ four times. This would indicate a perfect complementary relationship with the male in one one-down position. An example from the dialogue in this topic is illustrative of this kind of interaction:

119--H: But then I don't remember what'd I say to him?

224--W: You explained the wrong ways and the right ways and childbirth and other things.

121--H: Oh yah, I remember that . . . let's see . . .

223--W: Over in E. Lansing they already have a program in reproduction so he really already knew the right way.

For this couple, though there was some one-up/one-up competition during the middle salient topic, all their

conversations were predominantly one-up/one-down or resolved into this pattern following these relationally competitive bursts.

One of the upper class couples illustrates rather clearly another of these patterns of interaction--the stable symmetrical relationship. This doesn't mean that they have only symmetrical exchanges, rather it means that over time they have an equal number of similar exchanges. In this case this was true of each of the topics. The following example comes from the middle salient topic.

Relational Scores

Husband	Wife
↑↓ = 6	↑↓ = 5
↑↑ = 2	↑↑ = 1
↓↑ = 3	↓↑ = 5
↓↓ = 1	↓↓ = 1
SS = 4	SS = 4

A typical coded sequence from that dialogue is as follows:

Start

assertion-extension	= 223	F = SS
assertion-extension	= 123	M = ↑↓
talking-over-in-mumbles	= 259	F = ↓↑
assertion-extension	= 123	M = SS
assertion-extension	= 223	F = ↑↓
talking-over-agreement	= 151	M = ↓↑
assertion-extension	= 223	F = ↑↓
talking-over-agreement	= 151	M = ↓↑
assertion-extension	= 223	F = SS
assertion-extension	= 123	

In this example, the couple begins with a symmetrical exchange of assertion-extensions. The female then is

one-down via an unsuccessful attempt to interrupt. This is followed by another symmetrical exchange scored for the husband this time. Then there are a set of exchanges in which the husband is talking-over in agreement with what his wife is saying. The pattern concludes with another symmetrical exchange. This type of chain repeats itself, equalizing out over time and alternating positions of control for short periods of time prior to reasserting the symmetrical base.

Sluzki and Beavin refer to one of their patterns as Assymmetrical Competition toward One-down and Symmetry.¹ An example of this pattern was exhibited by another lower class couple. It is perhaps most strikingly found in their discussion of the middle salient topic, though, again, they are consistent over topics. Their relational score is as follows:

Husband	Wife
↑↓ = 8	↓↑ = 8
↑↑ = 1	↑↓ = 2
SS = 4	SS = 4

One of the patterns in that dialogue which demonstrates this is:

assertion-extension	= 223	F = SS
assertion-extension	= 123	M = ↑↓
talking-over-disagreement	= 252	F = ↓↑
assertion-extension	= 123	M = SS
assertion-extension	= 223	F = SS
assertion-extension	= 223	M = ↑↓
assertion-agreement	= 221	F = ↓↑
assertion-extension	= 123	M = SS
assertion-extension	= 223	

¹Sluzki and Beavin, op. cit.

This pattern is typical for this dyad and demonstrates almost a dance which this couple is engaged in. Every time they have been symmetrical for awhile, she defines herself as one-down only to later become symmetrical again and then, again, one-down, etc.

A pattern which Watzlawick¹ and Bateson² discuss is escalating symmetry. Here, individuals try to top each other culminating usually in one person's losing the point (being one-down) followed by a symmetrical exchange to redefine the relationship. An example of this comes from another lower class dyad which had the following interaction:

assertion-disagreement	= 122	M = ↑↑
question-in-disagreement	= 212	F = ↑↑
assertion-disagreement	= 122	M = ↑↑
instruction-in-disagreement	= 232	F = ↑↓
question-of-a-typical-nature	= 119	M = ↓↑
assertion-disagreement	= 222	F = ↑↓
talking-over-extension	= 153	M = SS
talking-over-extension	= 253	

In another of their discussions, they had the following exchange:

assertion-extension	= 223	F = SS
assertion-extension	= 123	M = ↑↑
assertion-disagreement	= 222	F = ↑↑
assertion-disagreement	= 122	M = ↑↓
question-of-a-typical-nature	= 219	F = ↓↓
talking-over-mumbling	= 159	M = SS
talking-over-mumbling	= 259	

¹Watzlawick, Jackson and Beavin, op. cit.

²G. Bateson, op. cit.

Throughout their discussion, a similar trend is seen. Competition to outdo the other partner is followed by a complementary exchange and then a symmetrical exchange as the demarcation of the end of that escalation. A completed competition is generally followed, for this couple, by either silence or laughter, both individual and mutual. Over time, the number of competition wins and losses equalizes out.

There are other patterns which Sluzki and Beavin discuss but which either didn't occur in this sample or which this author cannot yet consider himself qualified to identify positively. The only other pattern identifiable is that non-pattern which Sluzki and Beavin labeled "Fluid."¹ This they believe to be the pattern utilized by true "normals." One upper class couple displayed this tendency more significantly than any of the others. It is best shown by the high chi-squares on the sex by salience dimension of their relational communication, indicating lack of consistency over topics. They contribute four of the twelve significant or near significant chi-squares and the only significant pattern chi-square, discussed earlier.

Husband Chi-squares	Wife Chi-squares
↑↓ = 4.79*	↑↓ = 2.18
↑↑ = .55	↑↑ = .37
↓↑ = 4.24*	↓↑ = 5.45*
↓↓ = .37	↓↓ = .37
SS = 1.34	SS = 4.16*

¹Sluzki and Beavin, op. cit.

It would be precisely this lack of consistency, in the long run that would, perhaps, identify the truly normal dyad. It would indicate that their relational rule was to have a flexible rule rather than a rule placing them consistently in a complementary, symmetrical or some competing pattern.

Summary

In summation, then, based on the data gathered in this exploratory experiment, we can say that by examining ninety dialogues from thirty couples divided into two social classes, the significant findings indicate: (1) Upper and lower class dyads discuss topics varying in salience significantly different lengths of time but within the social class there is no significant difference in the length of time they discuss these topics; (2) Upper and lower class pairs use significantly different approaches to discussion with the lower class displaying more open disagreement and silence and the upper class dyads displaying more covert disagreement and more symmetrical kinds of behaviors, such as assertion-extensions and assertion-agreement-extensions; (3) There is consistency of both content codes and relational codes over topic salience by both sex and class, and by both aggregated and individual data indicating strong support for the long standing assumption that though people may say different

things or use different words, people with-a-history-together are consistent in the way they relate to each other; (4) There is a tendency for the two classes studied to relate differently to their spouses; and (5) it is possible to identify individual patterns as being stereotypic, consistent, or stable.

CHAPTER V

SUMMARY AND CONCLUSIONS

"I am but an egg about to be hatched."

A. Heinlein
Stranger in a Strange Land

Review

The purpose of this study was to explore and explicate the communication patterns of "normal" husband-wife dyads. Following a review of the literature, this author decided that the principle progress in family communication had come from the works of a group of therapists known as "system purists." This research began with Gregory Bateson and has developed through to Sluzki and Beavin's attempt to operationalize his variables. Taking this progress one step further, an interaction coding scheme was developed which codes (a) speaker, (b) speech, and (c) that speech as a response to the preceding stimulus, or meta-speech. A set of rules was created to reduce the resultant eighty-nine categories down to nine relational codes, whose relational frequencies were derived from pairs of category codes or dyadic exchanges.

It is this relational aspect and not a specific content analysis which is important. Relational communication serves as a constant gauge on the state of the system for components in that system. It also serves the researcher and therapist as an indication of the strengths and weaknesses of that system.

Given that every message bears both content and relational elements and that it serves to define, redefine, and reinforce relational rules, these rules ought to be quantifiable by the social scientist. Although in theory it should be possible to make any kind of a response to any kind of a stimulus statement, in fact, responses are patterned, rather than random in groups-with-a-history.

The vast majority of the research to date has been conducted with abnormal families as the subjects. The data gathered from these families seem to indicate that their patterns of communication are both rigid and destructive. They have greater periods of silence, take longer to arrive at decisions, disqualify disconfirm, and are non-supportive in a very consistent fashion. From these data family communication researchers tend to expect normal families to be more flexible in the sense that they have more than one pattern at their disposal, but are consistent relationally over time and topics.

Given these and other assumptions, it was felt that an exploratory study examining so-called "normal" husband-wife dyads was necessary. The principles of a good family communication study as outlined by Jay Haley were essentially followed. Topics were developed which would be relevant to the target audience--upper and lower class couples with children under ten years of age. These three topics, rank ordered by salience by each couple, required them to discuss practical alternatives for them and arrive at some decision regarding what to do if (1) their child was overheard discussing sex with a friend with misinformation; (2) night-time television programming began to offer programs for which their children wanted to stay up late; and (3) what they would do with their family in case of a Civil Defense emergency.

After obtaining audio-tapes from fifteen lower and fifteen upper class couples, these ninety dialogues were analyzed for time, salience, class, sex, and pattern differences on both aggregated and individual data. Given the restrictions of a non-random sample, one contact with each couple, and taping of three similar tasks, it was found that couples tend to possess patterns or rules of communication and that these patterns are not only discernable in the normal population but consistent for these dyads over topics varying in salience. Further, it was found that these patterns may not be randomly distributed over the general population, but rather, may be differentiated at least by class. In fact, strong evidence is

presented indicating relational consistency in both aggregate and individual cases over topics.

Content-structural distinctions between upper and lower class couples were also discovered which demonstrate that they do in fact talk differently, though on a relational level this differentiation is not quite as dramatic. More specifically, lower class subjects had more open disagreements while the upper class subjects used the subtler, but perhaps more powerful method of disconfirmation more frequently. Also, there was a greater incidence of supportive or symmetrical behavior among upper class dyads than among lower class dyads.

There appears to be considerable similarity across sex within a social class, such that both males and females in the lower class tend to ask more questions and disagree in a variety of ways, than do their upper class counterparts. Similarly, both upper class men and women tend to use assertion-extensions, talking-over-extensions, assertion-agreement-extensions and disconfirmations more frequently than lower class dyads. There is also an interaction effect indicating a greater tendency for upper class males and lower class females to make assertion-topic-changes more frequently than their spouses.

Using paired exchanges as the basic relational unit it was possible to demonstrate the greater variability of upper class responses, the consistency within class and

for individual dyads over topics varying in salience, and the relational distinctions between classes. There appears to be a greater tendency for symmetrical behaviors to occur among upper class pairs and for more complementarity and/or behaviors that should resolve in complementary or meta-complementary patterns among lower class dyads.

Finally, it was also possible, using this relational analysis system, to identify several major interaction patterns occurring in the normal population. These included, stable complementary, stable symmetrical, asymmetrical competition toward one-down and symmetry, escalating symmetry (which Sluzki and Beavin might label asymmetrical competition toward one-up and symmetry), and fluid.

An interesting point to note here is that no "ecological" problems were indicated. Data was analyzed for both aggregate and individual consistency across topics and similar results were found in both instances. This allows for generalization to both its occurrence in a class of people and to expectations about particular dyads within that population. The major restriction on this study comes from the fact that data was gathered as a result of only one meeting with each of these dyads, and they discussed topics similar in organization. This was consciously done to reduce variability in this initial exploratory study. Future research, to be discussed later, should explore these other possibilities as well.

On the whole nonparametric statistical tests were used except where the level of measurement approached the interval level, as in the question of time talked, or when it was desirous to determine if there was an interaction effect. These nonparametric tests were used primarily because of low cell frequency size, nominal or at best ordinal data, and the inability to fully achieve the assumption of a fully random sample. In using nonparametric statistics there is a loss of power-efficiency. Yates correction was used with small cell size and causes no problems when either the degrees of freedom are greater than one, or when cell size is greater than five.¹

Other Statistical Analysis

Given the sequential data it should be possible in the future to do some further analysis. Specifically, some form of cluster analysis and/or sequence analysis may be called for. This type of analysis would become particularly relevant once similar data have been gathered from a matched group of abnormal dyads. (To be discussed later.)

¹Op. Cit., Quinn McNeman, and S. Siegel, Non-parametric Statistics, McGraw-Hill, N.Y., 1956.

Cluster analysis depends "upon the identification of clusters and presumed factors by searching for inter-related groups of correlation coefficients or other measures of relation."¹ Perhaps the best form of cluster analysis for this type of data would be McQuitty's linkage analysis system. This is a method of clustering either people, items or any other objects, which have distinctive cluster-characteristics.² Elementary linkage analysis defines the linkage of one variable to another as the largest index of association which a variable has with any or all of the other variables. The data determine which variables are assigned to which clusters by their highest index of association.

For this interactional data, a cluster analysis would take the most frequently paired categories and cluster around them other pairs, from highest to lowest frequencies, which are related to the initial pair. For example, this might tell us that the incidence of a 23-23 is clustered with 53-23, 23-22, 23-27, but not with 25-00, or 90-51, etc. Given that cluster analysis is closely related to factor analysis, although it determines a typal

¹F. N. Kerlinger, Foundations of Behavioral Research, Holt, Rinehart and Winston, Inc., N.Y., 1964, p. 659.

²L. L. McQuitty, "Elementary Linkage Analysis for Isolating Orthogonal and Oblique types and Typal Relevancies," Educational and Psychological Measurement, Vol. 7, 1957, pp. 207-229.

structure rather than a simple structure, it ought to be possible to label these clusters. For example, there might be supportive, non-supportive, argumentative, competitive, disconfirming, complementary or symmetrical clusters emerging from this data. To be able to demonstrate a greater frequency of occurrence of one cluster type in the abnormal population surely warrants further investigation.

Another method of analysis potentially usable in the future is sequence analysis. Perhaps the most widely used is the Markov chain analysis. Here, as in relational theory, each act can be looked at as stimulus, response, and reinforcement. Suppes and Atkinson discuss the possibility that a sequence of apparently random variables $C_1, C_2, C_3 \dots, C_n \dots$, is a Markov chain. They conclude that for it to be a Markov chain:

. . . g i v e n a knowledge of the conditioning on trial n , the conditional probability is unchanged by knowledge of the conditioning on any trials preceding n . This fact is characteristic of Markov processes. The process is a Markov chain when the transition probabilities are independent of n , that is, constant over trials.¹

To apply the Markov process to this data would necessitate the identification of conditional probabilities attached to the wide variety of alternative response

¹P. Suppes and R. C. Atkinson, Markov Learning Models for Multiperson Interactions, Stanford University Press, Stanford, Calif., 1960.

categories to some given stimulus category. In other words, the development of a matrix of probabilities for response choices open to an individual as a function of the state in which that individual finds himself at each stage of the interaction. The frequency of paired code responses is a start in this direction but will require further investigation before its immediate payoff for this data can be assessed.

Future Research Suggestions

Given the success of this preliminary study of "normal" family communication in the dyad and the development of an analysis scheme, the concern must now be with how to further the systematized experimentation into this area. This future research falls primarily into three categories--short-term follow-up studies, long-term developmental studies and greater than dyadic studies.

Short-term Studies

Ideally, an identical study of "abnormal" husband-wife pairs should be conducted. It would ask upper and lower class couples in which at least one member of a pair was undergoing therapeutic assistance, to discuss identical topics. This type of study should reveal the significant relational differences between normal and abnormal dyads with-a-history. It would be possible to again note the

similarities across class and consistency over topic salience. A relational study such as this might also go a long way toward discovering a more operationally valid and realistic way of determining abnormal interaction behavior.

A similar short-term study dealing solely with parents of diagnosed schizophrenics might also be conducted. Here, too, both content and relational codes may uncover the stereotypic pattern of interaction utilized by these couples which not only distinguishes them from "normal" couples, but also results in abnormal offspring.

Also, other short-term studies of normal couples are called for. Besides the discussion of topics varying in salience to determine consistency, conflict resolution studies might be tried to discover homeostatic functions after problem arousal. Real conflict which the couple is currently coping with would be the best for this type of study, but revealed-differences technique or other conflict arousing stimuli would probably reveal some of these patterns.

Another potential study would replicate this one but allow for variation in length of association of husband-wife dyads. Obtaining data from newlyweds to "golden-agers" as verification of this data appears to be another logical "follow-up" study. Throughout these studies, emphasis should be placed on the development of criterion measures to evaluate relational satisfaction. This could result in an operationalization of abnormal communication and/or an index of relationships with destructive tendencies.

Long-term Developmental Investigations

The purpose of such long-term developmental studies would be to demonstrate the evolution of interaction patterns from exploratory to unstable to stable. Also, it would be worthwhile to investigate the conditions leading to changes in tactics and to their stability over time. It is at this point that some non-verbal categories should be added so that the transition of simple matter-energy kinesics to their utilization as information frames can be traced.

Such long-term studies could be conducted with roommate pairs, engaged couples or friendship pairs in grade school. The goal would be to obtain these pairs of subjects very close to their "first meeting"--for roommate pairs, their first day on campus, for engaged couples, shortly after the engagement, etc. Then, reexamine these dyads periodically noting changes in their relational communication.

Another developmental study certainly worth doing, though rather difficult to gather subjects, would be to add data on the parents of the above mentioned dyads. This could give the first verification of transference of relational behaviors from one system to another.

In addition, a study similar to this one might be conducted. The only addition would be to take the tapes

on three or more different evenings. This might offset any problems incurred by a one-time exposure.

Larger than Dyadic Groups

The method of analysis developed for this paper ought to be equally applicable to other groups-with-a-history with a larger group N. Initially such studies should concentrate on the study of triads and their coalition formation.

Georg Simmel began the work in this field by exploring the triad in the 1890's.¹ Caplow gave perhaps the first truly systematic treatment of coalitions.² His belief that the most desirable coalition partner is the weakest partner who is strong enough to produce a winning coalition, however, leaves the subtleties of long-term relationships out.

The importance of the coalition concept contributions to family and other communication system analyses lies in its ability to better conceptualize some of the dynamic interaction processes--both verbal and non-verbal--that occur within the system. Gamson apparently grasped the volatility of coalitions in an interacting system and defined coalitions as temporary events:

¹T. Caplow, Two Against One, Prentice-Hall Sociology Series, N.Y., 1968, pp. 12-15.

²T. Caplow, "A Theory of Coalition Formation," American Sociological Review, 21, 4, 1956, pp. 489-493.

There is generally little value consensus in a coalition and its stability requires tacit neutrality of the coalition on matters which go beyond the immediate prerogatives. The coalition is an instrument for achievement of widely ranging and even incompatible goals. Two members may realize their mutual goal antagonisms but such decisions lie in the future and the present alliance may make both better able to achieve a wide range of goals not all of which will be incompatible.¹

Given this orientation, perhaps we can better understand Watzlawick's statement that:

We believe that any future taxonomy of families will rely heavily on the identification and classification of typical coalition patterns. At present, for instance, recurrent data suggest that one of the schizophrenic patient's main concerns is manipulating coalitions so as to keep his parents at an optimal distance from each other. It would appear that, far more than a normal child, he feels a threat to his survival when his parents either come too close together or drift too far apart.²

In addition to this, both Wynne and Haley have suggested that coalitions, splits and, perhaps even meta-coalitions, are the very essence of maintaining family equilibrium.³

¹W. A. Gamson, "A Theory of Coalition Formation," American Sociological Review, 26, 1961, pp. 373-382, and W. A. Gamson, "An Experimental Test of a Theory of Coalition Formation," American Sociological Review, 26, 1961, pp. 565-573.

²P. Watzlawick, op. cit., Anthology.

³L. C. Wynne. "The Study of Intrafamilial Alignments and Splits in Exploratory Family Therapy," in Exploring the Base for Family Therapy, N. W. Ackerman, F. L. Beatman, and S. N. Sherman (eds.), Fam. Serv. Asc. of Amer., N.Y., pp. 95-115, and J. Haley, "Family Experiments: A New Type of Experimentation," Family Process, 1, 1962, pp. 265-293.

Using this scheme of relational analysis it should be possible to study coalition formation, and change, as well as other tactics of control in any group-with-a-history. One would assume that those members of the group in a coalition together would exhibit symmetrical relational behaviors, whereas they would exhibit a somewhat more complementary or competitive relational style with members of the group not in the coalition. Changes in coalitions and competition to form coalitions could also be mapped.

Conclusions

To engage in a study of interactions based on the participants communication behavior we must first fully understand the dynamics of the small group and the subtleties of communication existing within that group when it possesses a history. A systems conceptualization of the family must draw upon the findings of both small-group research and family communication research to understand a process conceptualization of communication behavior in this relationship.

The coding scheme which emerged from this process conceptualization is apparently effective in analyzing relational communication. This study has shown the existence of significant class discussion differences, as well as offering statistical support to the belief that the relational patterns

people use in their interactions in dyads with-a-history are consistent over topics and are discernable.

Some of the communication patterns of "normal" dyads have been revealed and described and suggestions for further research in this area have been offered. Beyond this, further exploration into abnormal and normal interaction differences in relational rules, homeostatic mechanisms, redundant kinesic behaviors, and tactics of control, is called for. Only additional large-scale research can uncover the elusive nature of man's communication behavior.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Bach, G. and P. Wyden. The Intimate Enemy. William Morrow and Co., N. Y., 1969.
- Bales, R. F. Interaction Process Analysis. Addison-Wesley, Cambridge, Mass., 1950.
- Bateson, G. "Minimal Requirements for a Theory of Schizophrenia," Archives of General Psychiatry, 2, 1960.
- Bateson, and D. D. Jackson. "Some Varieties of Pathogenic Organization," in Disorders of Communication. David Mck. Rioch (ed.), Research Publ. A.R.N.M.D. 42: 1964. ✓
- Beels, C. C. and A. Ferber. "Family Therapy: A View," Family Process, 8, March, 1969.
- Becker, E. The Birth and Death of Meaning. Free Press of Glencoe, 1962.
- Bergel, E. Social Stratification. McGraw-Hill Book Co., N.Y., 1962.
- Berlo, D. K. "The Context for Communication Study," a recent essay, Michigan State University, 1969.
- Bodin, A. M. "Family Interaction: A Social-Clinical Study of Synthetic, Normal and Problem Family Triads," a paper read at the Western Psychological Assoc., 1966.
- Bodin, A. M. "Conjoint Family Assessment," in Advances in Psychological Assessment. P. McReynolds (ed.). Science and Behavior Books, Palo Alto, California, 1968.
- Boszormenyi-Nagy, I. and J. L. Framo (eds.), Intensive Family Therapy, Harper and Row, Pubs., New York, 1965.
- a. I. Boszormenyi-Nagy, "A Theory of Relationships: Experience and Transaction;
 - b. J. L. Framo, "Systematic Research on Family Dynamics."

- Buber, M. I and Thou. Charles Scribner's Sons, N. Y., 1958.
- Caplow, T. "A Theory of Coalition Formation," American Sociological Review, 21, 4, 1956.
- Caplow, T. Two Against One. Prentice-Hall Sociology Series, N.Y., 1968.
- Cartwright, D. and A. Zander. Group Dynamics: Research and Theory, Row Peterson, Evanston, Ill., 1962.
- Cohen, A. M. "Changing Small Group Communication Networks," Administrative Science Quarterly, 6, 1962.
- Cooley, C. H. Human Nature and the Social Order. Free Press of Glencoe, 1956.
- Ferber, A. and M. Mendelsohn. "Training for Family Therapy," Family Process, 8, March, 1969.
- Ferreira, A. J. "Decision-Making in Normal and Pathological Families," Archives of General Psychiatry, 8, 1963.
- Ferreira, A. J. and W. D. Winter. "Family Interaction and Decision-Making," Archives of General Psychiatry, 13, 1965.
- Ferreira, A. J., W. D. Winter and E. J. Poindexter. "Some Interaction Variables in Normal and Abnormal Families," Family Process, 5, 1966.
- Flanders, R. "Interactional Analysis," in Interaction Analysis, Amidon and Hough (eds.), MacMillan Publ. Co., N.Y., 1963.
- Frank, G. H. "The Role of the Family in the Development of Psychopathology," Psychological Bulletin, 64, 1965.
- Franch, Jr., J. R. P. and B. H. Raven. "The Bases of Social Power," in Studies in Social Power, D. Cartwright (ed.). Ann Arbor, Mich., Univ. of Michigan Press, 1959.
- Gamson, W. A. "A Theory of Coalition Formation," American Sociological Review, 26, 1961, and W. A. Gamson, "An Experimental Test of a Theory of Coalition Formation," American Sociological Review, 26, 1961.

- Gross, E. "Symbiosis and Consensus as Integrative Factors in Small Groups," American Sociological Review, 21, 1956.
- Haley, J. "Family Experiments: A New Type of Experimentation," Family Process, 1, 1962.
- Haley, J. Strategies of Psychotherapy, Grune and Stratton, Inc., N.Y., 1963.
- Haley, J. "Research on Family Patterns: An Instrument Measurement," Family Process, 3, 1964.
- Hall, A. D. and R. E. Fagen. "Definition of System." General Systems Yearbook, 1, 1956.
- Hare, A. P. Handbook of Small-Group Research, The Free Press, Glencoe, N.Y., 1962.
- Hays, W. L. Statistics for Psychologists, Holt, Rinehart and Winston, N.Y., 1963.
- "Home Fallout Protection Survey for the State of Michigan --1969," A study conducted for the Office of Civil Defense by the Department of Communication, publ. April, 1970.
- Jackson, D. "Family Interaction, Family Homeostasis, and Some Implications for Conjoint Family Psychotherapy," in Science and Psychoanalysis. J. H. Masserman (ed.), Vol. 5, Grune and Stratton, N.Y., 1959.
- Jackson, D. "Family Rules: The Marital Quid Pro Quo," Archives of General Psychiatry, 12, 1965.
- Jackson, D. and P. Watzlawick. "Development of a Structured Family Interview," final Progress Report to the National Assoc. for Mental Health, Jan., 1966.
- Jackson, D.D. (ed.). Therapy, Communication and Change, Vols. 1 & 2, Science and Behavior Books, Inc., Palo Alto, California, 1968.
- Jourard, S. M. The Transparent Self. D. Van Nostrand Co., Princeton, N. J., 1964.
- Kelley, H. H. "Communication in Experimentally Created Hierarchies," Human Relations, 4, 1951, pp. 39-66; and J. Ruesh, J. Block and L. Bennett, "The Assessment of Communication," Journal of Psychology, 35, 1953.

- Kelman, H. "Compliance, Identification and Internalization: Three Processes of Attitude Change," Journal of Conflict Resolution, 2, 1958.
- Kerlinger, F. N. Foundations of Behavioral Research, Holt, Rinehart and Winston, Inc., N.Y., 1964.
- Krippendorff, K. "On Generating Data in Communication Research," presented at the National Society for the Study of Communication, February, 1969.
- Laing, R. D., H. Phillipson and A. R. Lee. Interpersonal Perceptions, Springer Publ. Co., N.Y., 1966.
- Leary, Timothy. Multi-level Measurement of Interpersonal Behavior, Berkeley, California, Psychological Consultation Service, 1956.
- Leavitt, H. J. "Some Effects of Certain Communication Patterns on Group Performance," Journal of Abnormal and Social Psychology, 66, 1951.
- Leik, R. "Instrumentality and Emotionality in Family Interaction," Sociometry, 26, 1963.
- Lennard, H.L. and A. Bernstein. The Anatomy of Psychotherapy. Columbia University Press, N.Y., 1960.
- Lerner, P. "Resolution of Intrafamilial Role Conflict in Families of Schizophrenic Patients," Journal of Nervous Mental Disorders, 3, 1965.
- Locke, H. J. Predicting Adjustment in Marriage, Henry Holt and Co., N.Y., 1951.
- Lyle, J. "Communication, Group Atmosphere, Productivity and Morale in Small Task Groups," Human Relations, 14, 1961.
- McLeod, J.M., S. H. Chaffee and D. B. Wackman. "Family Communication: An Updated Report," 1967, a paper presented to the Theory and Methodology Division Assoc. for Ed. in Journalism.
- McNemar, Quinn. Psychological Statistics, J. Wiley & Sons, Inc., N.Y., 1962.
- McQuitty, L. L. "Elementary Linkage Analysis for Isolating Orthogonal and Oblique types and Typal Relevancies," Educational and Psychological Measurement, Vol. 7, 1957.

- Mead, G. H. Mind, Self, and Society. Univ. of Chicago Press, Chicago, Ill., 1934.
- Miller, J. G. "Living Systems: Cross-level Hypotheses," Behavioral Science, Oct. 10, 1965.
- Murrell, S. A. and J. G. Stachowiak. "Consistency, Rigidity and Power in the Interaction of Clinic and Non-clinic Families," Journal of Abnormal Psychology, 72, 1967.
- O'Rourke, J. F. "Field and Laboratory: The Decision-Making Behavior of Family Groups in Two Experimental Conditions," Sociometry, 26, 1963.
- Parsons, T. and R. F. Bales. Family, Socialization, and Interaction Process, Free Press, Glencoe, Ill., 1955.
- Ruesch, Jurgen and Gregory Bateson. Communication, The Social Matiny of Psychiatry, New York, Norton, 1951.
- Ryder, R. and D. Goodrich. "Married Couples Responses to Disagreement," Family Process, 5, 1966.
- Satir, V. Conjoint Family Therapy, Palo Alto, Science and Behavior Books, Inc., 1968.
- Scheflen, A. E. "Stream and Structure of Communicational Behavior," Behavioral Studies Monograph #1, E. Penn. Psych. Inst., 1965.
- Siegel, S. Non-parametric Statistics, McGraw-Hill, New York, 1956.
- Sluzki, G. E. and J. H. Beavin. "Simetria y Complementaridad: Una Definicion Operacional y una Tipologia de Parejas" (Symmetry and Complementarity: An Operational Definition and a Typology of Dyads) Acta Psiquidtrica y Psicologica de America Latina, 11, 1965.
- Sluzki, G. E., J. H. Beavin, A. Tarnopolsky and E. Veron. "Transactional Disqualification," Archives of General Psychiatry, 18, 1967.
- Strodtbeck, F. L. "Husband-Wife Interaction Over Revealed Difference," American Sociological Review, 16, 1951.

- Sullivan, H. S. Conceptions of Modern Psychiatry, reprinted from Psychiatry: Journal of the Biology and Pathology of Interpersonal Relations, 3, 8, Feb. 1940 and May, 1945.
- Suppes, P. and R. C. Atkinson, Markov Learning Models for Multiperson Interactions, Stanford University Press, Stanford, Calif., 1960.
- Szasz, T. S. The Myth of Mental Illness, Paul B. Hoeber, Inc., New York, 1961.
- Thibaut, J. W. and H. H. Kelley. The Social Psychology of Groups, John Wiley and Sons, Inc., N.Y., 1959.
- Trager, G. L. "Paralanguage: A First Approximation," in Studies in Linguistics, 13, 1958.
- Turner, R. "The Ethnography of Experiment," American Behavioral Scientist, April, 1967, Sage Publ., Inc.
- Verwey, N. E. "Relationship of Adaptability to Interactional Contingency and Interpersonal Prediction," unpublished dissertation, University of Washington, 1962.
- Watzlawick, P. An Anthology of Human Communication. Science and Behavior Books, Inc., Palo Alto, California, 1964.
- Watzlawick, P. "Development of a Structured Family Interview," January, 1966, a final report to the National Assoc. for Mental Health.
- Watzlawick, P., J. H. Beavin and D. Jackson. Pragmatics of Human Communication, W. W. Norton and Co., N.Y., 1967.
- Winter, W. D. and A. J. Ferreira. "Interaction Process Analysis of Family Decision-Making," Family Process, 6, 1967.
- Wynne, L. C., I. M. Ryckoff, J. Day and S. I. Hirsch. "Pseudo-Mutuality in the Family Relations of Schizophrenics," Psychiatry, 21, 1958.
- Wynne, L. C. "The Study of Intrafamilial Alignments and Splits in Exploratory Family Therapy," in Exploring the Base for Family Therapy, N. W. Ackerman, F. L. Beatman, and S. N. Sherman (eds.), Fam. Serv. Asc. of Amer., N.Y.

APPENDIX

College of Communication Arts Department of Communication
Cable: Commdept

Dear Lansing Area Resident:

A Public Opinion Survey is currently being conducted in this area by a Doctoral candidate in the Department of Communication at Michigan State University. We are interested in what many of the residents of the Lansing community think about several interesting subjects.

We are interested in having you and your spouse participate in this survey, if you have children under ten (10) years old. This is necessary as the topics in the survey are of interest to families with young children.

This Public Opinion Survey will remain totally confidential and you will never be identified by name, or singled out as an example. We request your permission to tape record your discussion, as this will help us analyze our data.

You are part of a scientifically selected sample and your participation is of considerable importance to us. If you have any questions, please feel free to ask the person bearing this letter.

Sincerely,

Robert A. Mark, Instr.
Department of Communication
Michigan State University

College of Communication Arts Department of Communication

PUBLIC OPINION SURVEY - 1970

Instructions:

You will be presented with a series of situations which couples encounter from time to time. These situations can be handled in a variety of ways. We are interested in your opinions on these matters and would like for you to discuss as many of the alternatives that seem important to you. From these different views, select an alternative which you both agree on.

There are no right or wrong solutions . . . only what both of you agree on as most appropriate answer for the situation. Do not worry about the time, as you may take as much or as little time on each of the following three situations as you need. Do you have any questions?

Turn the page and begin on the first topic. When you have finished that one, proceed to the next, etc.

Imagine that you, your spouse and child (children) are at home together on a Sunday afternoon, and you are watching television or listening to the radio when a Civil Defense alert is broadcast. This broadcast informs you that you have only 15 minutes to prepare and take shelter prior to disaster. How would you, or you and your spouse handle this situation? Please discuss the possible alternatives and decide on a course of action.

(When you have completed discussing this topic, and reached a decision, please go on to the next situation.)

Imagine that your child (children) are about 12 years old and have been receiving some information about human reproduction in the classroom, as well as from other children. You accidentally overhear them discussing it with a friend and you realize that their information is quite incorrect and misleading. They are not aware that you overheard them. How would you, or you and your spouse handle this situation? Please discuss the possible alternatives and decide on a course of action.

(When you have completed discussing this topic, and reached a decision, please go on to the next situation.)

Imagine that it is now September, 1970. Your child (children) are just beginning a new school year. The major television networks (NBC, CBS, and ABC) have decided to run more "educational" programming in the evening hours. In addition to this, there are several new series on television that are popular among your child's (children's) friends, also scheduled for late night viewing. Now, your child (children) have asked to be allowed to stay up later than they do now to view these programs. How would you, or you and your spouse handle this situation? Please discuss the possible alternatives and decide on a course of action.

(When you have completed discussing this topic, and reached a decision, please go on to the next situation.)

Will you and your spouse please come to a joint agreement as to which of the three topics you discussed--sex education, television viewing attitudes, and Civil Defense planning--was most salient or important to you, and which of these topics was least salient or important to you. Write your decision below:

Most Important/salient: _____

Least Important/salient: _____

You have just completed the major portion of this Public Opinion Survey. We do, however, need some additional information, which, as is true of this entire survey, will be kept totally confidential.

1. Please list the ages and sex of your children below:

age	sex	age	sex
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

2. What was the last year of school you completed?

(Circle the last year)

Grade School: 1 2 3 4 5 6 7 8

High School: 1 2 3 4

Vocational Training: 1 2 3 4 5

University or College: 1 2 3 4 5 6 7 8

3. To be answered only by the spouse(s) who has (have) been earning an income during the past year: What is the title of the position you currently hold at your place of employment:

In this position, what is it that you do at work?

(Please give a short explanation of your job responsibilities.)

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 03196 4327