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ABSTRACT

At present, the interaction-oriented approach dominates psychiatric research and clinical practice in conjoint family therapy and also permeates much of the work in family and group sociology. This paper focuses on the communication variables which have been measured in family interaction therapy, the ways in which family interaction investigators have measured them; and some significant weaknesses, both conceptual and methodological, in existing family communication research. A list of references is included. (JM)

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PAPER D [Ⓢ]

FAMILY COMMUNICATION RESEARCH:

**A Critical Review of Approaches,
Methodologies and Substantive Findings**

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Nearly twenty years ago Bateson and his colleagues described the manifestation of psychiatric symptoms as a family adaptation process and urged psychiatric researchers to study family members interacting with one another (Bateson, Jackson, Haley and Weakland, 1956). The heightened interest in the study of family communication can be directly traced to the pioneering efforts of the Bateson group and the Mental Health Research Institute in Palo Alto. At present, the interaction-oriented approach dominates research and clinical practice in conjoint family therapy and permeates much of the work in family and group sociology as well.

In the most typically applied research paradigm in this area, families (usually both parents and one or two children) are brought together to discuss a problem or task which allows them to interact freely with one another in a manner similar to the way they usually interact. The intra-family communication is recorded, transcribed and coded according to some content or process analytical system such as who speaks after whom, who interrupts or intrudes upon whom, how much silence occurs, or how long it takes the family to solve the problem. Frequently, the basic objective is to see which measures are sensitive to differences between "normal" and "abnormal" families (Winter and Ferreira, 1970) or "satisfied" and "dissatisfied" marital

partners (Kahn, 1974). One difficulty shared by all investigators of family communication is the problem of constructing meaningful ways to systematically observe and measure the family interaction. The problems of what should be measured and how it (or they) should be measured will provide the major focal points of the present paper.

This paper has two principal objectives: (1) to describe the communication variables which have been measured and the ways in which family interaction investigators have measured them, and (2) to discuss some significant weaknesses, both conceptual and methodological, in existing family communication research. I will use Runkle and McGrath's facet approach (1972) to show the relative imbalance of attention given to the various facets of research in this area and then address four related questions: (1) What theories exist?, (2) What variables should be measured?, (3) What variables can be measured?, (4) What are the most promising strategies for future research?

FACETS, VIEWPOINTS, AND ASSUMPTIONS

Runkle and McGrath (1972) point out that three facets of research are applicable to all empirical investigations in the social and behavioral sciences. These facets are actors, behaviors, and contexts. Family members almost always constitute the actors of interest in family communication research. Usually, the central focus is on the family member who has been given a particular psychiatric diagnosis and the research question concerns how this

individual relates to other family members. The behaviors of interest are communication behaviors or interaction patterns. Most of the time no distinction is made between communication and interaction (Watzlawick, Beavin, and Jackson, 1967). The research context includes both the environmental setting and the situational constraints imposed on the actors. Family interaction research usually takes place in a research laboratory or clinic. Studies taking place in a natural setting are the exception rather than the rule. One of the important situational constraints is the family task assigned to the actors. There is no prototypical task in family interaction research. Instead, such diverse procedures as Watzlawick's Structured Family Interview (1964), Haley's Coalition paradigm (1962), Strodtbeck's Revealed Differences Technique (1951) and the more unstructured "discuss something together" problems, have all been used.

The majority of research in this area has been designed and conducted by persons primarily interested in helping those who want or need help, i.e. by clinically oriented psychologists or psychiatrists. Thus, it is not surprising to find a disproportionately large amount of attention given to actors and relatively little emphasis placed on behaviors and contexts. Most of this research is designed to make explorations and generalizations about family members rather than about communication or interpersonal contexts per se. Nevertheless, all of this research involves

family members, communication behaviors, and interpersonal contexts, so it is reasonable to ask at least two broad questions about all of it: (1) What does the research tell us about family systems or members, and (2) What does the research tell us about communication behaviors or interpersonal contexts? Unfortunately, the latter question has seldom been asked. Instead, researchers have concentrated almost solely on exploring and generalizing about family members. Obviously, this interest has influenced their choice of research designs. Investigators usually place priority on one or the other question, since the assumptions and objectives of the two are quite different. This, in itself, is of little importance. It becomes important when we realize that all researchers in this area, regardless of their purposes, must find ways to systematically observe and measure communication.

To illustrate the distinctive differences between an actor and a behavior orientation, some of the assumptions and questions of interest involved in each will be briefly examined.

The actor approach involves studying communication in the family in order to learn about the qualities and characteristics of family members, such as how individual "deviance" is shaped or how well we can classify families on the basis of their interaction patterns. There are some serious difficulties involved with designing research to deal with either of these problems.

The shaping of psychiatric disturbances has been the chief concern of such researchers as Jackson, Haley, Bateson, and Lidz. These writers contend that the mode of family communication is one of the (if not the major) significant factors leading to schizophrenic behavioral processes. As yet, however, none of these researchers have been able to observe family communications prior to the onset of psychiatric symptoms in the family. Instead, they have implicitly assumed that interaction patterns observed after the diagnosis of a family disturbance are in no significant way different from those patterns which preceded it (Lennard, Beaulieu, Embrey, 1965). Needless to say, such an assumption is not axiomatic and needs to be verified.

The hypothesis that different types of families communicate differently, but similar types of families communicate similarly has stimulated considerable research (Ferreira, Winter, and Poindexter, 1966). The objective of this research is to create an empirically derived typology of families, a typology based on similarities and differences in family interaction patterns. In a sense, this research seeks to validate diagnostic categories by demonstrating how well these categories predict differences in communication patterns. Using the predictive validity model, it is reasoned that such family categories as "schizophrenic," "normal" and "delinquent" are useful (or valid) to the extent that they predict actual differences in communication patterns. Thus, "schizophrenic" families should communicate

like other "schizophrenic" families, but unlike "delinquent" or "normal" families.

Haley (1972) has shown that the empirical verification of this hypothesis requires research designs in which families are classified by "blind" raters who listen to tape recordings of the verbal communication of different types of families. To date, only one investigator (Haley, in press) has attempted to do this and his raters were unable to successfully distinguish between even such gross categories as "normal" and "abnormal."

Emphasizing a behavior approach to family interaction research involves studying communication in families in order to learn about communication per se, while the contextual approach concentrates on the ways in which family contexts relate to other interactional contexts such as ad hoc groups. At a recent symposium on Family Interaction Research Watzlawick advocated the behavior and contextual approaches, urging researchs to devote more energy to the study of communication as a stocastic process (Watzlawick, 1972). Hawes (1973) and Smith (1972) have made similar proposals. The behavioral and contextual approaches assume that there are certain structural rules which govern human communication both within and between different contexts.

The purpose of context-oriented research is to discover the ways in which family systems differ from other interactional systems, as well as how they are similar, while behavior-oriented research addresses such questions as:

How is family communication different from any other communication? or How does a given communicative act influence subsequent acts in a family interchange and on what is this social influence pattern dependent (see e.g. Rausch, 1965).

On the basis of this brief description, it can be concluded that the actor approach is quite distinct from the behavior and context approaches in family interaction research. The differences are substantive ones involving such important parameters as assumptions, questions, and hypotheses. Apparently, these differences also have a substantial impact on research design. Nonetheless, the three approaches are united by a convergence on the same methodological problem: how to observe and measure family interaction.

Theory in Family Interaction Research

The comprehensiveness of a theory is usually evaluated by such criteria as logical consistency, testability, elegance, clarity, and the ability to make unambiguous predictions and to generate research. Judged by these standards, one would have to conclude that no comprehensive theory of family behavior exists. Indeed, one early reviewer of family interaction studies noted that "when actual experiments were attempted on families . . . there was little theory available to isolate the important variables to be measured" (Haley, 1962, p. 267). More recently, Waxler and Mishler concluded a thorough review of family experiments with the admonition that "the theoretical model of the family must be stated in a much more complex form than most

family investigators originally state it." (1971, p. 263.)

As mentioned earlier, family interaction researchers are united, for the most part, in their commitment to develop a classification system based on family interaction patterns. Thus, the unifying theme of this research is a dedication to classification. Unlike most research in the behavioral sciences, which is usually guided by theory, the impetus for family interaction research has emanated from the search for an interaction-based typology of families. Despite this unity of purpose, two distinct research approaches can be identified. I have labeled these approaches the explicative/theoretical and the a-theoretical.

Explicative/theoretical. This set of propositions about families has been labeled explicative/theoretical because it is primarily explanatory. Explicative propositions are useful because they help unfold the meaning of family communications. Such propositions, however, do not produce unambiguous predictions. It is difficult to derive indicative hypotheses from explicative/theoretical propositions, i.e., hypotheses that tell us what specific variables to look at and what to do to test the theory (Runkle and McGrath, 1973).

Systems theory is the most widely applied explicative/theoretical model of family behavior. The major assertion of family systems theory is that the family acts as a rule-governed system: family members interact with each other in an organized, redundant manner and these redundant patterns

govern family life (Jackson, 1965). Like other homeostatic systems, it is assumed that families are stable (Jackson, 1957; Haley, 1962). Thus, family interactions should fall into patterns and these patterns should be consistently observed over time.

One of the advantages of systems theory, from a communicational point of view, is its focus on transactions between individuals as the primary source of data. Relationships are given precedence over individuals. As a result, the objective of systems-oriented research on families is to find the self-governing patterns of behavior, what Jackson calls family rules (1965) and Waxler and Mishler refer to as family norms (1971).

According to Jackson, one finds a given family's operating rules by observing their repetitious sequences of interaction. Jackson also believes that a few basic rules govern a great deal of behavior. Apparently, the goal of family research is to discover the operant rules. Unfortunately, no a priori or empirical taxonomy of rules now exists, and, in itself, the notion of rules does not produce many testable hypotheses, or provide a method for observing rules. Instead, systems-oriented researchers develop their hypotheses from related concepts of communication theory. It is assumed that different patterns of organization result from different kinds of interpersonal relationships and that these relationships can be inferred from the communications in the family. Thus, it becomes important to emphasize such

concepts as the report and command functions of individual messages (Bateson, 1951) and the struggle for control in relationships vis a vis Watzlawick, Beavin, and Jackson's notion of symmetry, complementarity, and punctuation (1967):

From a researcher's standpoint, two disadvantages of systems theory stand out. First, it is not at all clear what specific interactional variables should be observed. As Alexander (1973) points out, this may be due to the dearth of relationship terms that now exist. Nevertheless, the consequence has been that investigators either choose variables easy to measure, such as who speaks after whom, or focus on significant variables in related fields such as research on ad hoc small groups (Turk, 1973; Alexander, 1973). Of what advantage is it to know that family structure deviates from randomness, if we don't know what qualities or aspects of structure are most important? It is after all, difficult to defend a communication research paradigm that ignores the meaning of symbolic acts.

Secondly, this approach is not well suited to the aims of building a clinical classification system. As a result, predictions about system properties such as structure and organization, are frequently reduced to clinical hunches. For example, Haley (1965) reasons that normal families should be less predictable (and therefore more random) in their interaction patterns than abnormal families, while Waxler and Mishler reach just the opposite conclusion (1970). In this case, systems theory is of little help in predicting

the conditions under which deviations from randomness can be expected or how great these deviations should be.

A-theoretical. The a-theoretical approach is best exemplified by the work of Ferreira and Winter (Ferreira and Winter, 1965; Ferreira, Winter and Poindexter, 1966; Winter and Ferreira, 1967; 1970; 1971). Apparently, these researchers assume it is too early in the course of family research to be proposing models or theories of behavior. As clinicians, their chief aim is to empirically validate the distinctions between "normal" and "abnormal" families by demonstrating that these distinctions are reflected in variables which are measurable in the family's interaction process. Thus, their task is to obtain a data base. Their concern for data is shown in their Family Interaction book where they include sections on "methods" and "problems," but no section on theory. They also show less concern for the extent to which families have consistently patterned behavior than with the specific behaviors which discriminate between family types. In this sense, Ferreira and Winter's research is highly explorative and many of their findings, such as the greater amount of silence in abnormal than normal families, are serendipitous or unexpected (Ferreira, Winter and Poindexter, 1966).

Actually, most family interaction research has been generated by the a-theoretical model. Given the paucity of theory, it is also likely that this approach will continue to dominate. Yet, it suffers from the same difficulties

as other unsystematic approaches. The number of potential variables is voluminous and the relationships between variables remain unknown or are obscured by the continual influx of new variables being studied. In the family field it is particularly bothersome because data are often reduced to individual behavior frequencies or profiles, while transactions, relationships, and processes get overlooked.

Variables Measured in Family Communication Research

All planned research is presumably preceded by the question: What variables should be measured? One first decides upon the significant parameters, then chooses a way to operationalize and measure them. Unfortunately, significant variables are not always amenable to measurement. As a result, investigators are often faced with the dilemma of whether to abandon significant variables and focus on measurable ones of lesser importance or to invest energy in creating new ways to make the significant but previously unmeasurable ones, accessible to systematic observation. No matter which choice is made, the first step is to find the significant parameters. This decision is usually reached in one of two ways. Some researchers work inductively, allowing theory to dictate the choice of observables; others work inductively, using the evidence of accumulated research, the so-called facts in the field, to disclose the observables. Translated into the terms of family communication research, this means that we can utilize the outcomes of research generated by the a-theoretical model or we can

let systems theory delineate the significant parameters.

After twenty years of research, it certainly seems justifiable to ask: What are the significant parameters of family interaction? What variables should be measured? In this section I shall suggest some preliminary answers to these questions. This shall be accomplished by: (1) identifying the parameters of importance suggested by systems theory; (2) evaluating how well these variables can, at present, be measured; (3) describing the interactional variables which have successfully discriminated between normal and abnormal families; and (4) describing how these variables have been measured.

As mentioned above, it has been difficult to translate the principles of systems theory into concepts and directly testable hypotheses about interpersonal behavior. Though specific variables are not easily specified, systems theory does enumerate the significant parameters of ongoing interpersonal systems. Systems theory focuses on the problems created by differing interactional context; it places primary emphasis on the characteristic properties of all living systems such as homeostatic functions and system maintenance, the flow of information and meanings between individuals (e.g. relational transactions), interactional constraints, and systems integration and disintegration. Theoretically, these parameters should not only be applicable to one system, such as the family, but to a wide range of ongoing, diffuse interactional systems (Lennard, 1971).

Most of the early research produced by the systems model was concerned with the structural properties of family systems. In one of the first structural studies Haley (1964) argued that families are organized systems and, since organization sets limits, interaction between family members should not be random. Acting on his expressed dislike for the inferences involved in content-analytic coding systems, Haley developed a "perfectly reliable" technique for measuring "who speaks after whom." Haley's system was one of the first to utilize the dyad, rather than the individual, as the major unit of measurement. The coding of messages in a three person family (husband (H), wife (W), child (C)) involved placing messages into one of the six possible transactional pairs (HW, HC, WH, WC, CH, CW). Each message, after the first, was coded as both a stimulus for the one following it and a response to the one preceding it. In the first study utilizing this method, Haley's hypothesis about the distribution of family interactions was supported (Haley, 1964), but his attempt to show that the amount of deviation from randomness distinguishes "normal" from "abnormal" families has been disputed by Waxler and Mishler (1970), who also criticized his method of computing R deviation scores.

Lennard, Beaulieu, and Embrey (1965) also conceived of the family as a control and regulation system, but unlike Haley, they included the content as well as the form of interpersonal communications in their study. The central

focus of this study was family permeability, defined as the success of family member's intrusions and the permissiveness of parents in regard to their child's intrusions. An intrusion was operationalized as an entry by a third person into a two-person interaction, an entry not specifically requested by the other family member. Thus, if a husband's message to his wife is followed by the child's speech to either husband or wife, it is coded as a child intrusion, unless the husband's speech implied, or directly called for, the child's response. In a sense, an intrusion disqualifies the communication preceding it. Lennard, and his colleagues assumed that families develop rules about how much, if any, intrusion is permissible. Their findings suggested that child intrusions occur less frequently in schizophrenic than in normal families and that schizophrenic families are significantly less successful in redirecting conversation, i.e. intruding.

Alexander (1973) also focused on the content of family interaction process. Contending that Hall and Fagan's conception of system elements can be viewed as the inter-relatedness or reciprocity between family members, Alexander hypothesized that reciprocal defensive communication is more prevalent in "maladaptive" families and reciprocal supportive communication more prevalent in "normal" families, but that the principle of reciprocity is maintained in both. A revision of Gibb's (1961) method for measuring defensive and supportive communication was developed and used to evaluate

family discussions from two types of families. Results supported Alexander's basic hypothesis, suggesting that considerable system reciprocity exists in all families, but the nature or content of that reciprocity differs (Alexander, 1973).

Recently, Erickson and Rogers (1973) described a new method of measuring both sequential and relational communication in married couples or other dyadic units. Unlike other coding systems, the one developed by Erickson and Rogers is directly linked to important theoretical constructs of communication theory (Watzlawick, Beavin, and Jackson, 1967) and appears to be general enough to apply to varying interactional contexts. As far as measurement units are concerned, it moves from paired units to transactional sequences and is, therefore, capable of indexing changing interactional patterns over time. Although the Erickson-Rogers system is presently restricted to two-person, verbal interactions, its conceptual connections to both systems theory and the analysis of transactions suggests that it may soon be revised for use in evaluating whole family interactions. In one study utilizing this method, Rogers (1972) found that symmetrical and transitory communication patterns were related to the degree of role discrepancy, i.e. inequity strain, in the dyadic system.

This brief and inexhaustive review of systems-oriented research suggests a growing interest in systems theory as a research paradigm for family studies. It would appear

that attempts to operationalize system parameters are now both more frequent and more successful. This is reflected in the new developments in transactional-level instead of individual-level measurement. At the very least, we now have evidence that families are relatively stable and organized systems and that within-system reciprocity can be demonstrated. Sheflen (1965), for example, has shown that patterns persist, regardless of the individual contributions of family members; if one member deviates from his customary interaction patterns, another will take over for him.

On the other hand, evidence on the differing patterns of regulation between family types is equivocal. Consequently, researchers are now turning to more specific content category systems, in an effort to discover which interpersonal communications regulate family life. Early findings suggest that system-disrupting communications such as intrusions are more prevalent and more tolerated in "normal" families, but that reciprocal patterns of disruption, such as hostility or defensiveness, occur more frequently in "abnormal" families. It is likely that the search for interpersonal communications that maintain system balance and those that change it, what Watzlawick, et al. (1967) call step-calibrations will continue. This will mean more research designed to develop content-or meaning-oriented category systems and less research utilizing inference-free coding. We can also expect to see less tabulating of individual frequency distributions. The shift from analyzing individual message

units to analyzing dyadic and other transactional units would appear to be complete.

While the parameters drawn from systems theory guide most systems-oriented family research, researchers committed to the a-theoretical approach seem to rely only on their own interests, intuitions, clinical biases and favored methodologies. Consequently, the a-theoretical approach has produced a widely diverse set of studies, emphasizing many different variables and employing vastly different measurement techniques. Indeed, many of the studies lack continuity and seem entirely unrelated. In this section, I will restrict my discussion to a representative sample of those studies which seek to discover which variables separate "abnormal" from "normal" groups.

The evidence does seem to support the claim that families with "identified patients" behave differently than "normal" families, but, as Haley recently pointed out (1972), the evidence is no more than indicative; it is not conclusive. The methods and measures used in these studies fail to meet the minimum scientific requirements of reliability and validity and most studies could be considered, at best, only exploratory not confirmatory. The research under consideration can be roughly divided into three categories according to the type of measures employed: individual measures, process measures, and outcome measures.

Several studies conducted by Cheek (1964, 1965) are representative of the individual measurement approach. Cheek

analyzed family conversations produced by 67 schizophrenic and 56 normal families with an adapted version of Bale's Interaction Process Analysis (IPA). Results indicated that mothers, in "schizophrenic" families were more dominant and their husbands more passive than their counterparts in normal families. These findings contradicted the earlier research of Caputo (1963), who also used the Bale's categories to evaluate family discussions. Although parents of "schizophrenic" children did show more overt conflict than parents of "normal" children, the maternal dominance, paternal passivity pattern did not emerge in the IPA analysis of the "schizophrenic" families. These contradictory results are further complicated by Winter and Ferreira's (1967) indictment of IPA's application to family research. Utilizing IPA categories to code interactions in ninety families, Winter and Ferreira found that IPA was "more clearly related to the behavior of the child than to the behavior of his parents" (p. 160). Since the inter-observer agreement ratios were also very low Winter and Ferreira concluded that the "Bale's IPA system, in its present form, is not suited for work with families" (p. 170).

One of the most comprehensive attempts to measure interactions in the whole family, was done by Riskin and Faunce (1970, b,; Faunce and Riskin, 1970). Concentrating on the measurement of process, Riskin and Faunce developed six Family Interaction Scales: Clarity, Topic Continuity, Commitment, Agreement/Disagreement, Affective Intensity,

and Relationship Quality. Their research was designed to determine whether these scales were capable of detecting differences between five classes of families: multi-problem, constricted, child-labeled, questionable, and normal. Unlike other family interaction studies, the unit of measurement was the whole family instead of a selected dyad or triad. The scale categories encompassed process rather than content and were, therefore, not coded in a mutually exclusive fashion, i.e. each speech was given a score on all six scales. Among the most significant results were the following: (1) Multi-problem families were the most unclear, had the most competitive and unfriendly climate and showed the highest amounts of interrupting, cutting-off and changing topics. (2) Constricted families were the most emotionally controlled: little affect was shown. Parents in these families were very friendly to each other, but very critical of their children. (3) Families with child-labeled problems experienced the most conflict, though the internal power struggle in these families was muted. The climate in these families was distinctively non-collaborative and was characterized by considerable expression of disagreement. (4) Normal families showed the highest amounts of joking, considerable spontaneity and an actively supportive climate. A wide range of intense affect was expressed in these families.

Like Riskin and Faunce, the Ferreira and Winter research group has also successfully isolated variables dis-

criminating between "normal" and "abnormal" families. In a study requiring families to jointly create three different TAT stories, Ferreira, Winter and Poindexter (1966) found that normal families spent significantly less time in silence than abnormal families and that the percentage of silence was relatively invariant within diagnostic groups across all three stories. Silence was measured by subtracting the sum of each family member's talking time from the total family's talking time, less the amount of time when voice overlapping took place.

An earlier study conducted by the same researchers (Ferreira and Winter, 1965) focused on several interactional variables related to decision-making. Spontaneous agreement, a measure of the similarity of opinions and wishes prior to interpersonal communication, was significantly higher in normal than in abnormal families. Ferreira and Winter interpret this finding as a sign of the greater congruency in normal than in pathological relationships. It may also reflect the greater amount of, and more accurate, communication found in normal families.

The Ferreira-Winter studies also illustrate their active concern for investigating family outcomes, e.g. successful and unsuccessful decision-making. In the TAT story study, Ferreira, Winter, and Poindexter (1966) found a direct relationship between the amount of silence and the inability to perform the task. Abnormal families engaged in significantly more silence and needed more time to complete the

task. These results were consistent with the findings of their earlier study employing "the unrevealed differences technique." In that study, abnormal families took more time to reach family consensus and their final decision reflected little fulfillment of the family member's earlier individual choices. Collectively, these data suggest that abnormal families are characterized by an inefficient use of time and unsatisfactory decision-making.

PROBLEMS TO BE WORKED OUT IN FUTURE RESEARCH

Though this review is by no means exhaustive, it does suggest some substantive problems which should receive high priority in subsequent family communication research. I will label the first set of problems measurement problems.

First, we need to ask the same questions of family interaction research that are asked of all research involving systematic observation of human behavior. How accurate are the measurements and how well do they measure what they claim to measure? The answers are difficult to find. Most reports make it difficult to determine how many observers were present and how reliability estimates were computed. Many do not even report rater reliability coefficients. Validity data is practically non-existent.

A second measurement problem concerns the unit of measurement. The present review suggests that most future research will concentrate on transactional units of measurement. Unfortunately, the conceptual parameters for these units have yet to be worked out. The problem was well expressed by Jackson (1965), when he wrote:

It is only when we attend to transactions between individuals as primary data that a qualitative shift in conceptual framework can be achieved. Yet our grasp of such data seems ephemeral; despite our best intentions, clear observations of interactional process fade into the old, individual vocabulary, there to be lost indistinguishable and heuristically

useless. To put the problem another way, we need measures which do not simply sum up individuals into a family unit; we need to measure the characteristics of the supra-individual family unit; characteristics for which presently we have almost no terminology (p. 4).

Haley has reiterated the same theme (1964):

Just as the first half of the century has been largely devoted to classifying and describing individuals, it seems probable the second half of the century will be devoted to classifying ongoing systems of two or more people. The dimensions upon which such a classification system will be based have yet to be devised.

A high priority should be given to developing relational terminology which can be translated into measurable variables. In this regard Erickson and Roger's (1973) work might serve as a prototype for what I have in mind. Leonard (1972) has recently defended the development of inclusive category systems which could be applied across many studies and in varying interactional contexts. No such system now exists. Those desiring to build such a system would be well advised to include nonverbal as well as the normal verbal communication categories. Excluding nonverbal behavior does considerable violence to the so-called "stream of communication" and thereby limits the utility of the system.

Given the current modus operandi of creating a new coding system for each new study, it is unlikely that a new system as pervasive as Bales IPA will soon be developed. At the very least, however, family researchers would be wise to dispose of the many inadequate and unreliable measuring instruments now available. Winter and Ferreira

(1967) have suggested that one way to decide which systems are worth using is to design studies in which different coding systems are applied to the same communication data. The time seems ripe for such a methodological study.

A third measurement problem reflects the relative reluctance of family researchers to move beyond univariate data analysis. Recent advances in such multivariate statistical techniques as discriminant analysis, canonical analysis, factor analysis, multiple linear regression, and multivariate informational analysis have apparently been ignored by family researchers. At this particular time, a high priority should be given to finding which, among the many variables being studied, do the best job of discriminating between abnormal and normal families. Multiple discriminant analysis is the most suitable technique for handling this problem. We also need to know how these variables are inter-related and whether we can reduce the many existing measures to a more parsimonious and more potent few. An example of what I mean is provided by Winter and Ferreira (1970) who reduced 31 variables to six factors. This kind of research begins to provide order for a field that badly needs it.

A second set of problems are what I refer to as ignored design priorities. The major design priority, I believe, should be the assessment of how contexts and situations influence family behavior. Most researchers only pay lip service to the influence of the testing context; studies manipu-

lating situational or contextual variables are very rare. This would be less of a problem if there was agreement on a standard family task, but the tasks assigned have been almost as diverse as the variables studied. It is at least plausible to assume that tasks in these studies influence the dispersion of interactions as much as the innate "nature" of the families themselves. O'Neill and Alexander (1971), for example, found that when three different tasks were used the dispersion of dominance scores among husbands and wives changed substantially. Consequently, O'Neill and Alexander contend that "it is clearly no longer adequate to assume that family process is a constant, regardless of the content or demands of the activity in which the family is engaged" (p. 172).

Aside from finding out how tasks affect family interaction, it would certainly help to know how situational settings influence it. Rausch (1965), who has long argued for representative sampling of situations, found that if he knew the situation (e.g. breakfast, bedtime, structured and unstructured games, instructional sessions, snack periods, etc.) he could improve his predictions of friendly and unfriendly behavior among children, well beyond chance. At a minimum, we need to know the ways in which family members behave differently in a laboratory setting than in their homes.

To summarize, I have suggested the following measurement concerns and design priorities: (1) pay closer attention to measuring and reporting reliability and validity;

(2) work out and operationalize the relational and transactional characteristics of family systems; (3) utilize multivariate statistical techniques in order to reduce the number of variables studied and to discover how these variables are related to one another; (4) design methodological studies aimed at determining which coding systems are valuable and which are worthless; (5) conduct studies which manipulate task and situational parameters, so as to determine their relative importance; and (6) produce a more representative sampling of tasks, situational contexts, and communication behaviors, especially nonverbal communications, to be used in future research with families.

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