COMMUNICATION PATTERNS OF MOTHERS IN MOTHER-CHILD INTERACTION WITHIN THE HOME

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ABSTRACT

COMMUNICATION PATTERNS OF MOTHERS IN MOTHER-CHILD INTERACTION WITHIN THE HOME

by Angela Remsberg Smith

This study attempted to identify verbal communication patterns of mothers during mother-child interaction within the home and to examine the relationship of the patterns to situational factors. Communication is one of the central elements in home management frameworks. For example, the functions of planning, controlling and evaluating cannot be carried out among several family members without communication. In the management process, communication serves to inform family members of the patterns of behavior expected of each. In this way, the interplay of role responsibility and communication networks contributes to the development of family members. In order to better understand this interplay, the study of the relationship between verbal family communication and the characteristics of the home environment is needed.

Taped conversations were collected of nine mothers with their preschool children while each dyad engaged in four different shared activities within their homes. The tapes were later transcribed and eight five-minute samples of the mothers' communications to their children were categorized using the

coding system described in Magrabi et al. ("Framework for Studying Family Patterns," J. of H.E., Vol. 59, Nov. 1967, 714-719). Biographical data and descriptions of situational factors in the family were obtained by interviews.

A resource was defined in this study as communication content a sender used to influence another person or persons--fact, preference, direction, and motivation. Each resource was further coded as to the mode of communicative exchange. The mode indicated the manner in which the resource was transmitted to the receiver--offering, seeking, accepting and not accepting. The sums of the frequencies for each mother in each of these sixteen communication categories were obtained and these were correlated with selected situational variables using the method of stepwise addition of variables to form a least squares equation.

The mean frequency of the message units delivered by the mothers to their children, when defined as to modes were: offering--69 percent; seeking--20 percent; accepting--8 percent; and not accepting--3 percent. When message units were defined as to resources, the frequencies were: fact--52 percent; preference--7 percent; direction or command--38 percent; and motivation or encouragement--3 percent.

Situational factors were found to be related to specific categories of the mothers' communication. Those factors related to all the modes were: (1) number of community moves

since marriage, (2) amount of time spent by mothers in household duties including such activities as meal preparation, dishwashing, bedmaking, and tidying up; and (3) amount of help with household duties. Those factors related to all the resources included the same three factors that were related to the modes plus the factor of family size and composition. The less frequently related variables for the modes and for the resources were: (1) mother's educational level, (2) father's daily hours from home because of employment, (3) family income, and (4) frequency of eating dinner together.

Combination of the mode-resource designations resulted in the situational variables clustered both by the frequency and the similarity of occurrence into two groups. Those factors most frequently related to the communication categories were: (1) family size and composition, (2) number of community moves since marriage, (3) amount of time spent by mothers in household duties, (4) amount of help with household duties. Less frequently related factors with the categories were: (1) mother's educational level, (2) father's daily hours from home because of employment, and (3) frequency of eating dinner together.

COMMUNICATION PATTERNS OF MOTHERS IN MOTHER-CHILD INTERACTION WITHIN THE HOME

By

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CHAPTER I

INTRODUCTION

Communication is an integral part of any management process and is recognized as one of the central elements in home management frameworks. Bettinghaus (1964, p. 50) at a 1964 Home Management Conference stated,

> I am convinced that communication is vital to the Home management task, and also convinced that we can develop an adequate theory of communication to the home management situation.

Liston, at the same meeting, categorized communication as one of the interaction processes involved in management by the family unit. She conceptualized it as

> a process involving transmission of a message from one individual or group of individuals to another individual or group of individuals. Also it is defined as the process of making common or of exchanging subjective states such as ideas, sentiments, and beliefs usually by means of language, though also by visual representation, imitation, and suggestion (Liston, 1964, p. 68).

Miller (1966, p. 92), on the other hand, has narrowed the concept for research purposes to

> the study of behavioral situations in which the source transmits a message to the receiver with the conscious attempt to affect the latter's behavior.

This definition refers predominately to verbal communication rather than to both verbal and non-verbal behavioral.

In developing a conceptual framework which defines the place of communication within the home management process, scientific efforts need to be focused on empirical research of communication patterns which will describe:

1. the people involved in the home management process;
2. the kinds of people involved as receivers or sources of communication;
3. the content and frequency of messages; and
4. the relationship of communication as a management process to the other basic components of family management--values, goals, resources, family, manager, environment, and problem situation.

Research of this type needs to be conducted within the home to preserve as much as possible the natural setting of the situation. Up to this time, though, a major problem in this area of research has been the development of coding systems applicable to family interaction as it relates to management.

Human resources are recognized as a basic component of family management. This concept refers to the energy, interests, abilities, skills, knowledge, and attributes of individuals. In the family the mother plays an important part in her child's development and resource use through her manipulative role during mother-child interaction within the home environment.

The following study attempted to identify communication patterns of mothers during mother-child interaction within the home and to examine their relationship with situational factors which were selected on the basis of studies in the review of the literature and the availability of data. The verbal

communication of each mother to her preschool child or children while participating in four shared activities was tape-recorded within the home during Fall, 1966, and Winter, 1967. These conversations were later coded on two bases--the salient resource and the mode of transmission.

The coding system utilized was especially adapted to evaluate verbal communication. With the use of this instrument, the frequency with which a specific resource was utilized with a specific mode was found for each mother. This was considered to be her communication pattern. The frequency of messages in each mode-resource category was then correlated with specific situational variables. These situational variables were composed of bibliographical data and descriptions of factors in the home environment.

Purpose of this Study

The two main purposes of categorizing the mothers' communication to their children were:

1. to explore ways of coding tape-recorded verbal communication of mother to child while they participated in shared activities in the home.
2. to identify if the elements of communication patterns of mothers were related to selected situational variables.

Previous studies by Bernstein (1965), Hess and Shipman (1965), Merrill (1946), Olim, Hess and Shipman (1965), and Walters, Conners and Zunich (1964) lead one to believe that situational variables would be related to a valid categorization of communication. The objective of this study was to

examine whether or not selected situational variables were related to specific categories of verbal communication. Because of its exploratory nature, no specific hypotheses were postulated.

Assumptions

Three assumptions underlying this study were:

1. communication is a symbolic system which expresses the roles and statuses of family members.
2. verbal communication can be differentiated into categories for analysis.
3. the communication pattern of a mother to her child is not influenced substantially by the nature of the activities in which they jointly participate.

Definition of Terms

The definitions of the terms as operationalized in this study were:

1. Communication--an interaction situation in which the source (person speaking) transmits a message to the receiver with the conscious attempt to affect the latter's behavior.
2. Communication pattern--relative frequency of resource category and mode of communication as coded by the coding system of Magrabi et al. (1967).
3. Resource--content a sender uses to influence another person or persons--fact, preference, direction, or motivation.
4. Mode--the manner in which the resource is transmitted to the receiver--offering, seeking, accepting, or not accepting.
5. Message unit--each attempt to transmit a single thought or idea (one stimulus) from mother to child.

CHAPTER II

REVIEW OF LITERATURE

Communication as a Process

Communication is one of the processes of management. As a process it is composed of interactions which are events by which one party tangibly influences the overt action or state of mind of the other (Loomis, 1960). The purpose of communication is to elicit a specific response from a particular person or group. For the family communication conveys meanings of social acts. Through this process, information, decisions, and directions are transmitted among actors which affect the ways in which knowledge, opinions and attitudes are formed or modified by interaction. Since every social act must have at least two people, communication represents a symbolic interaction from which the individual acquires insight and knowledge of his role (Berlo, 1950).

Communication is recognized as one of the central elements in home management frameworks. For example, the functions of planning, controlling, and evaluating cannot be carried out among family members without communication. During the management process, communication serves to inform family members of the patterns of behavior expected of each. Liston's (1964)

conceptual model of home management interlaces communication with the development of individual family members. This development takes place when responsibility is assumed by a family member. It is through role playing that family members learn the cultural patterns associated with their respective roles.

Sabin (1954) defines role as a "patterned sequence of learned activities or deeds performed by a person in an interaction situation" and Linton (1945) defines role as a combination of cultural patterns associated with a particular position or status within the social system. Roles and statuses are important in communication because they identify the participants and convey both verbal and non-verbal messages. These messages serve as instructions from the receiver to the sender concerning how the receiver should be addressed and from the sender to the receiver concerning how the verbal message should be interpreted (Ruesch, 1953).

In Liston's (1964) model of home management, communication networks within and outside the family serve to transmit information about behavior expected of persons playing each particular role. These unique patterns of role responsibility for each family affect the ways of getting decisions made and carried out when various problem situations occur. Communication serves to inform the members of the overt patterns of thinking, feeling, and acting that are expected of each member and as a result, according to Liston, characteristic patterns

for each family are formed and can be identified. Interpersonal tactics are employed by family members as attempts to change existing roles, statuses, or rules, while the manipulation of communication content is used by family members as a control technique. Efforts are made both to sustain existing relationships and to maintain and clarify self-identity.

Styles of Communication

Bernstein (1965) identified two styles of communication found in families--public (or restricted) and formal (or elaborated). He suggested that they have important implications in child development. Each family in society has a derivative of one of the styles. The restrictive style of communication consists of short, simple, often unfinished sentences. The intent of these messages is to promote solidarity or to reduce tension. On the other hand, the elaborate style of communication is individualized; the message is specific to a particular situation, topic, or person. Messages of this type are more differentiated and precise than messages of the restrictive style; as a result, they permit a wider and more complex range of thought.

Bernstein went on to illustrate the meshing of social interaction and language style by the distinctions he made between two family types--those oriented toward control by social norms, or by statues, and those oriented toward persons. In status oriented families, role characteristics and expectations

serve as guides for behavior. The behavioral norms, which are stressed through the restrictive style of verbal communication, rely upon the status of participants, or a behavioral norm for justification. Verbal exchange is inherent in the structure; it regulates it and is regulated by it. In the person oriented family, the unique characteristics of the family members modify status and role demands which affect interaction. Behavior is justified in terms of preference, personal reactions and subjective states. A wide range of linguistic and behavioral alternatives in interpersonal exchange is evident.

With Bernstein's concepts of language style and family style as a foundation, Olim, Hess, and Shipman (1966) conducted a study to observe the relationship of language style to family type. They found that families oriented to control by status appeal, or role designations, used predominately the restrictive style of communication. The children in this situation learned best by rote-learning techniques and tended to be compliant.

Olim, Hess and Shipman (1965) continued the above research using samples from different socio-economic populations. The results of their studies showed evidence that the restrictive style of communication was used extensively in lower class families. The elaborate style, on the other hand, was used mostly in middle and upper class families. Within the individual families, the association between language and social structure emerged in terms of principles that governed

decision-making activities. These activities, in turn, helped to regulate the nature and amount of social exchange.

Walters, Conners and Zunich (1964) had earlier investigated the relationship of mother-child interaction to the lower socio-economic class in the study, "Interaction of Mothers and Children from Lower Class Families"; they found that mothers and their children had less interaction than those middle and upper class subjects who participated in an earlier study by Merrill (1946). The middle and upper class subjects used directing behavior four times as frequently, helping behavior nine times as frequently, structuring behavior five times as frequently and teaching behavior more than three times as frequently as did the lower class mothers (Walters et al., 1964).

Based on the earlier research, Hess and Shipman (1965) postulated that the two types of language styles affected the children's patterns of cognitive development differently. Since these patterns of cognitive activity are socialized in early experience in the home, especially with the mother, they become the basis upon which further cognitive development proceeds. The researchers, in addition, considered the mother a teacher and viewed interaction between the mother and child as a teaching-learning situation (Hess and Shipman, 1967). If, then, the growth of cognitive functioning is mediated by experience, the strategies that a mother employs are likely to have consequences for the ability of the child to grasp or learn a lesson in any specific teaching.

In a study now in progress, Georianne Baker (1965) has integrated Hess and Shipman's cognitive theory within the process of home management. Her objective is to delineate empirically the way resources present within the environment of preschool children are organized and utilized for educability, that is, the goal of preparing children to participate in the future school situation. One part of the study is to analyze the mother's communication in an attempt to acquire the mother's verbal reactions to a set of drawings or photographs which represent selected resource utilization actions. The reactions are to be coded to form a subscore of the Home Resource Pattern Scale.

Coding System Development

Developing coding systems to analyze communication between family members which are meaningful to home management processes and which can be applied objectively to family integration situations has been one of the real problems in research. In 1964, Bettinghaus observed that in every book and article he had read in home management, communication was given the same level of importance as any other element of the management process; yet, none of the sources made use of communication theory in any fashion which helped to understand the process of home management. He further stated that in the home management area attempts made to fit management models to the home management situation had failed. In the area of the social

sciences, similar problems of model adaptability have occurred, especially in researchers' attempts to analyze communication. Heuristic communication models have been developed by Berlo (1961), Morris (1964), Reusch (1953), and Miller (1966). In addition, several researchers have made attempts to specifically classify communicative acts. These classifications may be applicable to home management models.

Bales (1950) has developed an interaction process analysis system. This framework divides communication into twelve categories. Each single act spoken or gestured is placed in the most appropriate division. An index of supportiveness is then computed for each speaker.

Kenkel and Hoffman (1956), using Bales' framework, focused on the communication between husband and wife in a hypothetical decision situation. Strodtbeck (1954), also using Bales' model, studied the family as a three person group. He described the communication of mother, father, and son during discussions of hypothetical situations. This appears to be the only completed study found during the review of literature which had been operationalized in the home; all the rest were conducted in the laboratory.

Longabaugh (1963) divided each communicative message into (1) resources salient in the interaction and (2) modes of transmission which were defined as:

Salient resources	Primary modalities
Fact	Offering
Information	Seeking
Support	Depriving, i.e., taking away, withholding
	Accepting
	Not accepting, i.e., ignoral, rejection

The resources were defined as information, support, and control. The modes of transmission were defined as offering, seeking, depriving, accepting, and not accepting. The direct measurement of rewards and costs occurring could then be grossly counted. Direct measurement of quantity brings the variables to the operational level where they can be used for experimentation.

Magrabi et al. (1967) adapted Longabaugh's framework by modifying the categories of salient resources to make them more appropriate to the study of family activity patterns within the home. The salient resources in this revised coding system included fact, preference, direction or command, and motivation or encouragement. This framework was designed to code only verbal behavior as collected in the home by use of a tape recorder. This approach to collecting family communication differed from the other studies found in the search through the literature in two ways:

1. It referred to activities observed within the home.
2. The definition of communication included only verbal communication; it did not include non-verbal.

Hess and Shipman (1967) developed a coding system in which they identified relationships between socio-economic

characteristics and the cognitive elements in maternal behavior of four socio-economic groups of mothers and children during laboratory observations. Results indicate that mothers differed little in the affective elements of their interaction with their children. The gross differences appeared in the frequencies of patterning stimuli by the mother which organized information for the child and in the cognitive environments which they represented. An analysis of maternal techniques of conversing with their children utilized a laboratory procedure in which mothers were asked to teach their children three specified tasks. Two tape recorders were used to record the mother's verbal behavior during the interaction with her child instead of coding during the observation. One tape recorded the sound while a hidden observer recorded behavioral observations on another tape at the same time. The transcripts containing the verbalizations of the subjects and the observer's descriptions of the mothers' non-verbal behavior were divided into message units and were coded by a category system. The categories were informing, motivating, orienting, seeking physical feedback, seeking verbal feedback, positive reinforcement and negative reinforcement.

Conclusions From the Review of Literature

Since the mother and child may react differently in a laboratory setting than in the home atmosphere, it is important to observe interaction in the home, but there are several

problems related to coding mother-child interaction outside the laboratory. The amount of control the researcher has over the environment and the subjects is greatly reduced. This affects the methods of coding possible and the type of mother-child interaction that will be observed; yet despite these weaknesses, the home setting provides a more natural environment for the interaction. Since the observer cannot remain hidden, he must either code behavior during the observation, in the presence of the participants, or record it for later transcription.

The specific coding categories used in a research design will depend on the researcher's definition of communication and one's objectives of the study. Hess and Shipman (1965) used a definition of communication which included both verbal and non-verbal behavior. Miller (1966), on the other hand, defined communication as the study of behavioral situations in which a speaker through his message to a receiver consciously tries to affect his behavior. This definition refers to predominately verbal communication; non-verbal communication is on the perifery of the model. Using this definition it would be easier to identify and observe a subset of phenomena unique to communication and measureable in objective terms than when the definition would include both verbal and non-verbal stimuli. The Miller criterion also makes tape recording sessions of family communication feasible and once this verbal communication is recorded, it can be stored until coding is possible.

A well-defined coding system would enable the researcher to analyze the data objectively and the use of tapes would enable the researcher to review the communication several times, if necessary, in order to code the verbal interaction and to check intercoder reliability.

A study in which the conversation of mother to child during the participation in shared home activities would be tape-recorded, coded, and analyzed would introduce a new approach in gathering data about family interaction within the home based on objective, measureable criteria. It would also offer a new criterion for evaluating conversational patterns of mothers to be correlated with situational variables. This analysis would be a useful addition of information for obtaining a greater understanding of the management process in the home.

Hess and Shipman (1967) found in their study of socio-economic levels that the association between language and social structure emerged in terms of principles that govern decision-making processes, which in turn help to regulate the nature and amount of social exchange. Other researchers had previously found similar relationships between communication content of mothers and their socio-economic levels. Based on these studies, one concludes that communication and family situational variables are not independent. Therefore, they need to be studied as they occur in the home environment.

CHAPTER III

MATERIALS AND METHODS

Method

For this study mother-child activities within homes were used as behavioral situations. An interview method was utilized to obtain biographical data and descriptions of situational factors surrounding the home environments. Conversations between mothers and children during four shared home activities were obtained by taped recordings during home visits and were later transcribed. The data for this study were selected from the questionnaires and taped conversations collected in a pilot study.[1]

Random samples of mothers' conversations directed to their children during shared home activities were coded using the system developed by Magrabi et al. (1967). For each mother the number of message units in each conversation category in the coding system was correlated with selected situational variables.

The situational variables examined in this study were chosen on the basis of characteristics of social structure.

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[1]"Use of Space, Material and Communication Among Family Members Performing Family Activities." Michigan Agricultural Experiment Station Project No. 786.

Those factors which emerged during the review of studies by Bernstein (1965), Hess and Shipman (1965), Merrill (1946), Olim et al. (1965), and Walters et al. (1964) were: family size and composition, educational level of mother, and family income. Other variables included were factors thought by the researcher to control the pattern of family life and interaction among members. They included the father's daily hours from home because of employment, time allocated by mother for household duties, amount of help mother received with household duties, frequency of eating dinner together, and the number of community moves since marriage.

Detailed Descriptions of Measures Employed

Interview schedule and method. A three part interview schedule was used to obtain background information about the families. Information obtained from the questionnaire for this study pertained to:

1. family size and composition,
2. educational status of wife,
3. husband's daily hours from home because of employment,
4. family income,
5. number of community moves since marriage,
6. time allocated for household duties by the mother,
7. amount of help given the mother with household duties,
8. frequency of eating dinner together.

The questionnaire was precoded to facilitate punching the data onto IBM cards.

Coding categories and definitions. Magrabi et al. (1967) revised Longahaugh's model by modifying the categories in salient resources and in modalities (modes). The framework was

designed to code only verbal behavior collected within the home by use of a tape recorder. The revised resources and modes were:

Salient resources	Primary modalities (modes)
Fact	Offering
Preference	Seeking
Direction or command	Accepting
Motivation or encouragement	Not accepting

This framework described verbal communication as an exchange process of resources. A resource was defined as communication content a sender used to influence another person or persons; the possible resources were: fact, preference, direction, or motivation. The definitions of the resources were:

1. Fact--that which is believed by the speaker to be of actual occurrence and existence, reality as an event, statement of a thing done or existing, indisputable statement--not an evaluation or preference.
2. Preference--that which conveys the act of preferring (a value judgment) or opportunity of choosing--either explicitly offered or implied. Usually found within messages that ask questions or offer a choice between two or more things.
3. Command or direction--that which implies action--to direct authoritatively, order, require, guide, manage or bring into common action. Stimuli which contain "shall we" if a definite command or guidance is implied. Questions seeking from another "what to do next" when one is at the end of an activity. Statements which infer self direction (e.g., I will go now.). Instances when the source calls a person by name in order to gain their attention; this is at the beginning of a message unit.
4. Motivation or encouragement--that which is intended to inspire, hearten, and/or cheer up an individual or incite satisfying relationships. Stimuli are mostly spontaneous, exuberant statements, not questions or mundane or expected reinforcements, such as "O.K.," "all right," "yea," and "unhuh." Most message units are of the offering mode.

In the communication process one person will instigate a message when he makes use of a particular resource in an attempt to influence another. The other party will then react by responding to the resource already made salient. As a result of the interaction, rewards and costs are incurred for the actors. Rewards are the pleasures, satisfactions and gratifications the person enjoys; or the provision of means whereby a drive is reduced or a need is fulfilled. Costs, on the other hand, are the factors that operate to inhibit or deter the performance of a sequence of behavior. The reward less the cost is the psychic profit. This is the necessary consequence for the parties in order for an exchange to continue.

For each resource there were four modes of communicative exchange between persons. The mode was used to convey the resource as it was transmitted to the receiver. The possible modes were offering, seeking, accepting, or not accepting. They are defined in this study as follows:

1. Offering--act of one offering.
2. Seeking--act of inquiring or searching. Stimuli of this mode are usually phased in the form of questions.
3. Accepting--act of receiving (with a consenting mind) a thing or idea offered; to admit or agree to; to receive with favor; to approve; to confirm.
4. Not accepting--act of rejecting or declining; to refuse; disagree to; receive with disfavor; disapprove.

Modes play an important role in transmitting the resource from a sender to a receiver and vice versa. Possible ways of communication transmission are:

1. If a person (sender) offers a resource to a receiver, the latter can either accept the resource or he can "not accept" the resource, in which case he either will reject or ignore it.
2. If the sender seeks a resource from a receiver, the latter can either respond by offering the resource or he can ignore the request.
3. Accepting--act of receiving (with a consenting mind) a thing or idea offered; to admit or agree to; to receive with favor; to approve; to confirm.
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Modes play an important role in transmitting the resource from a sender to a receiver and vice versa. Possible ways of communication transmission are:

1. If a person (sender) offers a resource to a receiver, the latter can either accept the resource or he can "not accept" the resource, in which case he either will reject or ignore it.
2. If the sender seeks a resource from a receiver, the latter can either respond by offering the resource or he can ignore the request.
3. If the receiver accepts an offered resource by the sender, he can continue the communicative interchange by either offering a resource to or seeking a resource from the original sender.
4. On the other hand, if a receiver does not accept a resource offered by the sender, he can initiate further communication by either offering a resource to or seeking a resource from the sender.

The individual message units were defined as each attempt to transmit a single thought or idea (one stimulus) from one person to another. It may have consisted of one word, "No"; several words, "In a Minute"; or a complete sentence, "I don't think we will want to do that yet."

A message was considered extraneous material and coded as "9" if it was uninterpretable either because it could not be distinguished when transcribing the tapes or could not be coded because of a lack of understanding of the situation. A common occurrence was the response "yes" at the beginning of an activity. Without the knowledge of the previous communication, it was not possible to interpret the salient resource. The following responses were also coded as "9" if the coder was not able to determine to what they referred: "okeydoke," "all right," "there," "woops," "oh," and "well." If the message was not considered extraneous material, it was coded with respect to the resource and the mode utilized.

Examples of message units categorized into each of the sixteen cells, as shown below, are in the appendix, pp. 64-66.

RESOURCES

MODES	Fact	Preference	Direction	Motivation
Offering				
Seeking				
Accepting				
Not Accepting				

Intercoder reliability. The reliability of the coding was measured by calculating the percentage of agreement between two persons independently coding two five-minute samples of data immediately preceding the coding of the data reported here. The formula used was:

$$\text{Intercoder reliability} = \frac{\text{Number of agreements between two coders}}{\text{Number of message units per five minute sample}} \times 100$$

The testing for intercoder reliability was done by the researcher and one other graduate student in the Department of Home Management who had not used the coding system before. The coding system was explained to the graduate student and the terms were defined and discussed. One two-minute and one five-minute practice sessions were carried out immediately before the reliability coding. The intercoder agreement for the five-minute practice session was 85.6 percent.

The intercoder reliability of the first five-minute coding session was 76/83 or 91.5 percent, while for the second five-minute session it was 40/43 or 93.0 percent. The mean intercoder reliability was 92.2 percent over both sessions.

Description of Subjects

The study was confined to conversations of nine mothers who had a child enrolled in Michigan State University's Laboratory Preschool during Fall, 1966, and Winter, 1967. The non-random sample was chosen on the basis of availability of subjects

with preschool children. The data collection took place during shared home activities of the mother and the preschool child who was attending Laboratory Preschool. Other family members, in addition, participated in some of the activities. (Refer to Appendix, pp. 67-69, Table 10, for a resume of the sample characteristics.)

Family size and composition. The families ranged in size from 4 to 8 members with a mean of 4.6 members. Three families did not have fathers present in the home. In one case the mother and father were divorced; in another they were separated; and in another the mother had remained unmarried.

The age of the husbands ranged from 28 up to and including 42 years with a mean of 35.2 years. The age of the wives ranged from 24 years up to and including 42 years with a mean of 31.1 years. Two-thirds of the homemakers were in the 28 to 33 age range.

There were 27 children in the sample families. The ages ranged from 7 months up to and including 13 years. A resume is shown in Table 1. There were 16 males and 11 females. Fifteen children were preschoolers.

Table 1. Age of Children

Age Group	Number of Children
7 to 12 months	2
2 years	2
3 to 5 years	11
6 to 10 years	11
13 years	1
Total	27

Educational level. All the mothers had at least a ninth grade education while two had some college; two had bachelor's degrees; and two had advanced degrees.

Of the six fathers present in the home, only one had at least a ninth grade education; the remaining five had at least some college. Of these five, two fathers had bachelor's degrees and two fathers had advanced degrees.

Employment status. Only two women were employed. One was employed in the clerical field 4 to 8 hours daily. The other was employed as a service worker one day weekly. One other woman was a graduate student. There was no indication of the amount of time she spent outside the home at school daily.

All of the fathers present in the home were employed. The hours daily away from home because of employment ranged from less than 6 hours to more than 12 hours. The mean time away from home for the husbands ranged from 6 to 11 hours.

One husband was a carpenter, another was a salesman and the other four were classified as professional. In the professional group, two of the men held doctorates, one was a lawyer and one was a graduate student.

Family income. The family income ranged from $3,000 to $20,000 per year as shown in Table 2. The three fatherless families received $4,000 or less annually while the families with fathers present had incomes of at least $6,000 with 5 of the 6 families receiving $9,000 or more annually.

Table 2. Annual Family Income

Annual Family Income	Number of Families
$2,000 to $4,000	3
$6,000	1
$9,000	1
$10,000 to $12,000	3
Over $12,000	1
Total	9

Type of dwelling. The residences of the entire sample were similar in that all the families were living in single family dwellings. It was the one independent variable consistent for all observations.

Amount of help with household duties from family members. The amount of daily help given the mother with ten household duties varied among the families. The duties selected for the study were:

1. dishwashing
2. meal preparation
3. family laundry
4. bedmaking
5. daily tidying up
6. weekly cleaning
7. chauffeuring family
8. yard work and outside house care
9. caring for family members
10. caring for pets

Father's assistance ranged from 3 to 6 duties with a mean of 3.1. Children's help ranged from 1 to 7 duties with a mean

of 3.7. The combination of all help given the mother included husbands, children and hired help. The number of duties that family members and hired help assisted the mother in completing or in completing without the mothers' help ranged from 3 to 9; the mean was 5.9 different duties.

Frequency of dinner eaten together. Five of the families always ate this meal together, two usually, and two seldom.

Collection of Data

The Michigan State University Laboratory Preschool was contacted in the fall of 1967 in order to obtain names of families with at least one child in Laboratory Preschool during Fall, 1966. After Laboratory Preschool's recommendation of thirty families in the Greater Lansing Area, contacts to elicit cooperation and to set times for interviews were made with the mothers of these families until ten mothers were obtained. On the basis of family income, five of the families were considered to be at a middle socio-economic level and five at a lower socio-economic level. Thus, the sample was non-randomly selected, based on the availability of a preschool child and the willingness to participate. Data collection from one of the families of the lower socio-economic group was not completed because of a death in the family.

Data for the study were obtained through personal interviews with each homemaker either during the initial visit to her home or on subsequent visits when the activities were

tape-recorded. During the interview the following procedures were followed:

1. Biographical information was secured by open-ended questions.
2. Check lists pertaining to the household routine were completed.
3. Precoded questions concerning other situational variables were answered.

Collecting the data served a two-fold purpose. First it gave information to further describe the sample. Second, it served to establish general rapport between the observer and the respondent.

The interviews and the taped recordings of the mother-child activities within the home were conducted in the morning or afternoon, depending upon the convenience of the homemakers and the schedule of the researcher. No weekend activities were collected. The mothers were free to choose any home activities to do with their children during the observations; suggestions such as cookie baking, meal preparation, and bed making were made by the researchers. Actual activities included during the taped sessions were: cookie making, tree trimming, bed making, meal preparation, dressing, story telling, playing with toys, feeding pets, packing away groceries, and making valentine cards.

The length of the home activities varied from 11 minutes to 45 minutes with a mean of 25.1 minutes. For six families, each activity was recorded on a different day. Two families were observed only twice with the collection of data of two

separate activities at each observation. For one family, a single observational visit was made, at which time all four activities were recorded in a single morning session.

Coding procedure. Before coding the taped-recorded activities within the home, the data were transcribed from tapes to paper by research workers who were associated with the pilot study. A "+" was put in the appropriate column to the left of each message unit to indicate which person was speaking and a "-" was placed in the appropriate column indicating to whom the conversation was directed.

The data were transcribed from the tapes to coding sheets during Spring, 1967 through Fall, 1967. For this study the transcribed conversations were divided into five-minute units for each mother-child activity and eight five-minute samples of conversation were chosen for each mother based on the following criteria:

1. In order for a five minute sample to be eligible, the mother must have transmitted at least ten message units per five-minute period.
2. Two five-minute periods were randomly selected, using a table of random numbers, from all the eligible five-minute samples for each of the four activities. There were a total of eight five-minute samples or 40 minutes of conversation selected for each mother.
3. The eight five-minute samples for each mother were coded using the coding system described earlier. The specific resource used was determined first; then the mode of transmission was selected.

Both mothers and children's communication were coded in order to examine the mothers' communication in the context of the interaction situation but only the mothers' conversations were analyzed. Conversations of the mothers to the observer were not coded but were considered irrelevant to the study of home activity patterns. All data were coded within six days after determining intercoder reliability.

The sum of the frequencies for each of the sixteen possible mode-resource dyads of all eight samples were found for each mother and were used as variables indicating communication pattern.

Analysis of data. The data were analyzed using descriptive and statistical techniques.[1] Biographical information such as ages of children, education level of mother, family income, and dwelling was used descriptively. Analysis of variance was used to find if any means of the message units were significantly different from one another. Duncan's multiple range test then isolated those means which were significantly different from one another. The LSADD Routine was used to identify those situational variables which were most highly related to the conversation categories.

Analysis of variance of message units was computed considering mother, mode, resource, and all possible two way interactions as sources of variance. Means significantly different from one another on the basis of the F test were

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[1]Dr. Charles Cress, Statistican for the College of Agriculture served as a consultant in suggesting ways of analyzing the data.

identified using Duncan's (1955) multiple range test. Differences were concluded to be significant at the five percent level.

The family background and situational responses of the interview and the sum of the frequencies of the communication patterns were punched on IBM cards. The LSADD Routine, using a CDC 3600 computer at Michigan State University, was used to develop the stepwise addition of variables to form a least squares equation.[1]

In the LSADD Routine one dependent variable is specified for regression with several independent variables. Independent variables may be "forced" into the regression analysis initially if the experimenter desires to do so. Usually this "forcing" technique is limited to those variables known or thought to influence the dependent variables. Additional independent variables may be specified or designated for possible inclusion or consideration in the regression analysis; in which case, an arbitrary maximum significance level is stated.

When the LSADD Routine is initiated, all independent variables are scanned and the single variable that is contributing the most to the regression analysis is selected. Then the regression equation is computed regressing the selected independent variable with the dependent variable. This process

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[1]Computer programs written and developed by Mary E. Rafter and William Ruble of the Michigan State University Computer Laboratory, Agricultural Experiment Station, were utilized in analysis of variance and regression analyses.

is repeated again selecting from the remaining variables a second independent variable that contributes the most to the regression. Additional independent variables are considered and included in the order in which they contribute to the overall regression. When the significance level of the regression about the mean reaches the level originally specified by the researcher, the program is completed for the dependent variable under consideration. However, the researcher must evaluate the regression equation developed by this system as to the validity of the variables included or not included. Additional programs may be necessary to develop a more accurate regression equation once the initial equation has been proposed by the **LSADD** Routine. Because this was an exploratory study with limited data, the analyses were not carried beyond the point of identifying variables which appeared to be most highly significant.

The number of message units in each communication category was considered, in turn, as a dependent variable. For each dependent variable, all the situational variables (independent variables) were listed for consideration and possible inclusion in a regression analysis. Because of this study's exploratory nature, there was no prehand knowledge or basis to indicate which independent variables should have been forced into the regression. Therefore, no situational variables were forced into the equation and all were specified (listed) as possible factors in the program. The significance level was specified as $P \leq 0.20$.

CHAPTER IV

FINDINGS

The relationship of the situational factors to the communication categories will be discussed in the following order: (1) distribution of message units, (2) test for independence of categories, (3) test of relationships hetween communication categories and situational variables, (4) relationships when the message units were categorized as to modes, (5) relationships when the message units were categorized as to resources, and (6) relationships when the message units were categorized as to mode-resource interaction.

Distribution of Message Units

A total of 2,644 message units, or a mean of 293.7 message units for each forty minute sample of communication, were spoken by the nine mothers tc their children during shared home activities. The message units were analyzed as to their distribution to both the mode and resource categories.

Each mode was composed of the four resources--fact, preference, direction, and motivation. Communications of the offering mode were found to comprise a mean of 458 message units per mother or 69 percent of the total communication. The seeking mode accounted for a mean of 129 message units per mother

or 20 percent of the total while the accepting mode represented a mean of 55 or 8 percent of the total. The not accepting mode accounted for a mean of 19 or 3 percent of the total number of communications from mothers to children (Table 3).

Table 3. The Distribution of Message Units of Mothers' Communication to Children During Home Activities as Related to the Categories or Resources and Modes.[1]

Communication Categories	Total Number of Message Units	Mean Number Per Mother	Percentage of Total
Mode[2]			
Offering	1,834	458 A	69
Seeking	515	129 B	20
Accepting	220	55 C	8
Not accepting	75	19 C	3
Resource[3]			
Fact	1,366	344 a	52
Preference	177	44 b	7
Direction (or command)	1,016	252 c	38
Motivation (or encouragement)	85	21 b	3
Total	2,644	611	

[1]Means followed by the same case letter are not significantly different from one another but means followed by different case letters are significantly different from one another ($P < 0.05$).

[2]Composed of four resources--fact, preference, direction, motivation.

[3]Composed of four modes--offering, seeking, accepting, not accepting.

Each resource was composed of the four modes which were offering, seeking, accepting, and not accepting. For the resource of fact, the mean number of message units delivered by the mothers was 344 or 52 percent of the total resource communications. For the resource of preference a mean of 44 message units or 7 percent of the total communications were transmitted this way. For the resource of direction (or command) a mean of 254 message units or 38 percent of the total message units were recorded, and for the resource of motivation, 21 communications or 3 percent of the total message units were of this type.

Test of Independence of Categories

Several significant differences were found between message units when they were categorized as to the four modes and then as to the four resources; although for the mode categories no significant differences were found between the mean frequencies of accepting and of not accepting. This is not too surprising, for the differences between these two modes is one of degree of attitude rather than a completely different manner of transmitting contents. When the accepting and not accepting modes were considered as one, significant differences were found between the mean frequency in this combined category and the modes of offering and of seeking. This indicated that the three major divisions into which the message units were categorized were significantly different from one another.

For the resource categories, no significant differences for the mean frequency of the message units were found between preference and motivation; yet each of these were significantly different from the communication frequencies of fact and of preference. These results indicated that the categories set up by the model were defining the message units into independent groups. Longabaugh (1963), in his model, incorporated fact and preference into one large resource category he called information. The data of this study supported the feasibility of separating this resource in order to examine the informational content of communication in greater depth and it also lent support to the content validity of the model.

Test for Relationship Between Communication Categories and Situational Variables

Using the regression technique, the difference in the number of message units in each category between mothers was shown to be related to specific situational variables. Some situational variables were related to more communication categories than others; however, all the situational variables were used in explaining the differences in the frequency of message units in one or more categories.

The relationship of the situational factors to message units when they were separated into mode categories and then into resource categories was abstracted from the regression equations (Table 4). To determine what situational factors were related to the message units of a mode, the variables in the

Table 4. Relationships of Situational Variables with Multiple Regression Correlational Coefficients (R) to the Mode-Resource Categories[1]

Modes	RESOURCES			
	Fact	ΔR	Preference	ΔR
Offering	Wife's educational level	.52	Maximum time spent in household duties	.45
	Total family members	.77	Minimum time spent in meal preparation	.90
	Maximum time spent in household duties	.88	No. of community moves since marriage	.97
	Amount of child help	.96	Amount of all help	.98
	Amount of father help	.99	No. of males	.99
			No. of wash loads	.99
			Minimum time spent in meal preparation	1.0
Seeking	Wife's educational level	.63	Family income	.29
	Minimum time spent in household duties	.76	Frequency of eating dinner together	.61
Accepting	Maximum time spent in meal preparation	.67	Minimum time spent in meal preparation	.41
	Minimum time spent in meal preparation	.78	Maximum time spent in household duties	.71
			Amount of father help	.94
			No. community moves since marriage	.98
			No. wash loads	.99
Not accepting	Maximum time spent in meal preparation	.48	Father's hours from home daily	.39
	Minimum time spent in household duties	.68	Maximum time spent in meal preparation	.64
	Amount of father help	.85		
	No. of males	.91		
	No. of community moves since marriage	.97		
	Family income	.99		

[1] ΔR indicates increases in R due to addition of variables as shown.

Table 4 - Continued

RESOURCES

Modes	Direction	ΔR	Motivation	ΔR
Offering	Minimum time spent in meal preparation	.43	Maximum time spent in meal preparation	.56
	Maximum time spent in household duties	.75	Maximum time spent in household duties	.92
	No. of males	.86	Father's hours from home daily	.95
	Father's hours from home daily	.92	Minimum time spent in household duties	.98
	Wife's educational level	.96	No. of community moves since marriage	.99
	No. of community moves since marriage	.99		
Seeking	Wife's educational level	.47	Amount of child help	.54
	Maximum time spent in household duties	.63	No. males	.72
	Frequency of eating dinner together	.88	No. community moves since marriage	.81
	No. of community moves since marriage	.96	Amount of all help	.89
	Amount of child help	.98		
	Minimum time spent in household duties	.99		
	No. of males	1.00		
Accepting	Wife's educational level	.54	Maximum time spent in household duties	.37
	Amount of child help	.71	Amount of child help	.62
	Frequency of eating dinner together	.82	Wife's educational level	.88
	No. of community moves since marriage	.94	No. community moves since marriage	.94
	Father's hours from home daily	.98	Minimum time spent in household duties	.97
			Maximum time spent in meal preparation	.99
			Family income	.99
Not accepting	Total no. in family	.37	0 for all observations	
	Amount of all help	.57		

four mode-resource categories in which the mode under consideration was a part were examined. All variables found to be related to at least one mode-resource dyad in which the mode was a part were considered related to the mode. For example, to determine if wife's educational level was related to the mode of offering, all the situational variables related to offering fact, offering preference, offering direction and offering motivation were scanned to determine if wife's educational level was listed. Since it was related to the communication dyads of offering fact and offering direction it was considered related to the mode of offering.

A similar technique was used to determine what situational factors were related to the resources. All variables which appeared more than once in the regression equations in which the mode-resource dyad had the resource under examination as part of it were considered related to the resource. For example, to determine if wife's educational level was related to the resource of fact, all situational variables in the regression equations of offering fact, seeking fact, accepting fact and not accepting fact were scanned. Because wife's educational level appeared twice (offering fact, seeking fact), it was considered related to the resource of fact.

The situational factors of (1) family size and composition, (2) time allocated for household duties, and (3) amount of help with household duties were subdivided into component parts to show their relationship to the modes and the resources.

If at least one of the subcategories was related to a mode or resource, then the main variable was considered related to that mode or resource. For example, in Table 6 (p. 43), family size and composition is subdivided into number of males, number of females, and total number of family members. The subcategories--number of males and total number of family members--showed relationships with the offering mode; therefore, the main family variable of family size and composition was considered related to the mode of offering as shown in Table 5 (p. 41).

For the main variable of time allocated for household duties, subcategories of minimum and maximum times for both meal preparation and household duties were specified. On the questionnaire, time allocations for these two duties were expressed as a range of time such as 15-30 minutes, 30-60 minutes, 1 hour to 2 hours. The minimum time of the duty was the first figure of the range that the mother had indicated such as 15 minutes if the mother had selected the time span of 15-30 minutes. The maximum time for the duty was the larger figure such as 30 minutes in the above illustration. If the duty was discussed without reference to time range (minimum or maximum) the relationship of both the minimum and the maximum of the given duty to the modes or resources were combined. For example, in Table 8 (p. 47), the minimum time spent in meal preparation was related to the resources of fact, preference and direction; and maximum time spent in meal preparation was

related to the resources of fact and motivation; the variable of time spent in meal preparation was considered to be related to all four resources. The same method of determining relationships applied when modes were considered.

The Relationship of Situational Factors to the Modes

The distribution of the situational factors indicated that all of them were related to modes of the mothers' communication to their children as shown in Table 5. Those factors related to all the modes (offering, seeking, accepting, and not accepting) were: number of community moves since marriage, time allocated for household duties, and amount of help with household duties.

Additional variables specifically related to the mode of offering were family size and composition, mother's educational level, and father's daily hours from home because of employment. For the communications of seeking, the other related variables were family size and composition, mother's educational level, family income, and frequency of eating dinner together; while for the communications of accepting, related situational variables were mother's educational level, father's daily hours from home because of employment, family income, and frequency of eating dinner together. For the communications of motivation, the related variables were family size and composition, father's daily hours from home because of employment, and family income.

Table 5. The Relationship of Situational Variables with the Modes Communicated From Mothers to Their Children During Shared Home Activities

Situational Variables	Mode[1]			
	Offering	Seeking	Accepting	Not Accepting
Family size and composition	x	x		x
Mother's educational level	x	x	x	
Father's daily hours from home	x		x	x
Family income		x	x	x
Community moves since marriage	x	x	x	x
Time allocated for household duties	x	x	x	x
Amount of help with household duties	x	x	x	x
Frequency of eating dinner together		x	x	

[1]Composed of the resources of fact, preference, direction, and motivation.

There were differences in the relationship of the component parts of the situational variables with the modes. An examination of how the three component parts of family size and composition were related to the modes indicated that the number of females in the family did not appear to be related to any of them. The number of males, though, was related to all but the mode of accepting, and the total number of family members was related to the modes of offering and not accepting (Table 6).

The variable of time allocated for household duties was composed of five situational variables as shown in Table 6. All five measures were related to both the modes of offering and accepting. The minimum and maximum times allocated for household duties, which included dishwashing, bedmaking, tidying up and care of pets, were related to all four modes. The number of wash loads was related only to the two variables of offering and accepting. Laundry, unlike the other component variables is usually not a daily household duty.

The relationship of the three component variables of the amount of help given the mother with household duties, to the modes, indicated that all three variables were related to the offering mode (Table 6). Total amount of help included father, children and hired help.

Table 6. The Relationship of Situation Variables and Their Component Parts with the Modes Communicated from Mothers to Their Children During Shared Home Activities

Situational Variables	Modes[1]			
	Offering	Seeking	Accepting	Not Accepting
Family size and composition:				
No. males	x	x		x
No. females				
Total no. in family	x			x
Mother's educational level	x	x	x	
Father's daily hours from home because of work	x		x	x
Family income		x	x	x
No. of community moves since marriage	x	x	x	x
Amount of help with household duties:				
Amount of father help	x		x	x
Amount of child help	x	x	x	x
Amount of all help	x	x		x
Time allocated for household duties:				
Minimum time for meal prep.	x		x	
Maximum time for meal prep.	x		x	x
Minimum time for household duties	x	x	x	x
Maximum time for household duties	x	x	x	x
No. weekly wash loads	x		x	
Frequency of eating dinner together		x	x	

[1]Composed of the resources of fact, preference, direction, and motivation.

The Relationship of Situational Variables to the Resources

The distribution of the situational factors indicated that all of them were related to specific resources of the mothers' communication to their children as shown in Table 7. Those situational factors related to every resource (fact, preference, direction, and motivation) were: family size and composition, the number of community moves since marriage; the time allocated for household duties, and amount of help with household duties.

Additional variables specifically related to the resource of factual communication were mother's educational level and family income. For communications of preference, the other related variables were father's daily hours from home because of employment, family income, and frequency of eating dinner together. For communications of direction or command related situational variables were mother's educational level; father's daily hours from home because of employment, and frequency of eating dinner together; while for the resource of motivation, related variables were mother's educational level, father's daily hours from home because of employment, and family income.

There were differences in the relationship of the component situational variables making up three larger classifications. For the major variable of family size and composition, the relationship of the three component parts to the resources differed from one another as shown in Table 8. For example,

Table 7. The Relationship of Situational Variables with the Resources Communicated from Mothers to their Children During Shared Home Activities

Situational Variables	Resource[1]			
	Fact	Preference	Direction	Motivation
Family size and composition	x	x	x	x
Mother's educational level	x		x	x
Father's daily hours from home		x	x	x
Family income	x	x		x
Community moves since marriage	x	x	x	x
Time allocated for household duties	x	x	x	x
Amount of help with household duties	x	x	x	x
Frequency of eating dinner together		x	x	

[1]Composed of four modes of offering, seeking, accepting, and not accepting.

the number of males in the family was related to all the resources; while the number of females did not appear to be related to any of the resources, just as it had not been related to any of the modes. The total number of family members was related to the resources of fact and motivation.

The variable of time allocated for household duties was composed of five variables as shown in Table 8. Time spent in meal preparation and household duties, which were daily activities, were related to all four resources. The number of wash loads was only related to the resource of preference; laundry is usually not a daily duty.

The relationship of the three component variables of the amount of help with household duties to the resources is shown in Table 8. Total amount of help included father, children, and hired help. The amount of child help and amount of all help appeared related to the resources of direction and motivation whereas father help did not appear related to these resources, but was related to the resources of fact and preference.

The Relationship of the Situational Variables of the Mode-Resource Categories

The number of message units for each mother in each communication category is shown in the Appendix, Table 11, p. 70.

The means for all mothers' message units in the categories of offering fact and offering direction were not significantly different from one another but they were significantly different

Table 8. The Relationship of Situational Variables and Their Component Parts with the Resources Communicated from Mothers to their Children During Shared Home Activities

Situational Variables	Resources[1]			
	Fact	Preference	Direction	Motivation
Family size and composition:				
No. males	x	x	x	x
No. females				
Total no. in family		x	x	x
Mother's educational level	x		x	x
Father's daily hours from home because of work		x	x	x
Family income	x	x		x
No. of community moves since marriage	x	x	x	x
Amount of help with household duties:				
Amount of father help	x	x		
Amount of child help	x		x	x
Amount of all help		x	x	x
Time allocated for household duties:				
Minimum time for meal prep.	x	x	x	
Maximum time for meal prep.	x			x
Minimum time for household duties	x	x	x	x
Maximum time for household duties	x	x	x	x
No. weekly wash loads		x		
Frequency of eating dinner		x	x	

[1]Composed of the modes of offering, seeking, accepting, not accepting.

from the message units in the category of seeking fact (Table 9). These three categories were significantly different from all message units in the other thirteen categories and no communications in any of the other categories were significantly different from one another.

Patterns in the relationships of some variables to the communication categories were evident from the simple correlations. A value of $r \geq .50$ was arbitrarily set as the criterion within which a variable was considered to be related to a mode-resource category. Wife's education appeared to be related to the communications in which the offering and accepting modes were in combination with resources (Appendix, Table 12, p. 71). The variable of time spent in meal preparation was related to all four of the mode-resource categories in which the mode of offering was a part. This variable was also related to three of the four possible mode-resource categories in each case where the resources of fact, preference, and direction were a part of the communication dyad. Father's help was related to three of the four categories in which fact was the resource while all help was related to three of the four categories in which direction was the resource.

Theoretically all sixteen mode-resource categories were possible but in the small sample of this study no message units of not accepting motivation were transmitted from the mothers to their children. Five of the remaining fifteen categories had two situational variables related to them and the remaining

Table 9. The Sum and Mean Distribution of Message Units in Each Communication Category[1]

Mode	Resource			
	Fact	Preference	Direction	Motivation
Offering	Σ = 803	Σ = 33	Σ = 916	Σ = 82
	$\bar{X}$ = 89.2ab	$\bar{X}$ = 3.6d	$\bar{X}$ = 101.7a	$\bar{X}$ = 9.1d
Seeking	Σ = 383	Σ = 106	Σ = 24	Σ = 2
	$\bar{X}$ = 42.5c	$\bar{X}$ = 11.7d	$\bar{X}$ = 2.6d	$\bar{X}$ = .2d
Accepting	Σ = 132	Σ = 36	Σ = 51	Σ = 1
	$\bar{X}$ = 14.6d	$\bar{X}$ = 4.0d	$\bar{X}$ = 5.6d	$\bar{X}$ = 0.1d
Not Accepting	Σ = 48	Σ = 2	Σ = 25	Σ = 0
	$\bar{X}$ = 5.3d	$\bar{X}$ = .2d	$\bar{X}$ = 2.7d	$\bar{X}$ = 0d

[1]Means followed by the same case letter are not significantly different from one another but means followed by different case letters are significantly different from one another ($P < 0.05$).

Total number = 2,644

Mean number = 293.7

ten categories each had four to seven factors related to them. Those situational variables most often related to the mode-resource categories were: the size and composition of the family, number of community moves since marriage, time allocated for household duties and the amount of help with household duties. All of these variables except community moves were related to daily operation of the house. The less frequently occurring variables were: mother's educational level, father's daily hours from home because of employment, family income, and frequency of eating dinner together. Except for dining frequency, these latter factors were all related to the socio-economic level of the family. It was interesting to note that the variables most frequently related to communication style pertained to daily operation of the house and that the less frequently occurring variables pertained to socio-economic levels of the families.

Similarities were evident between several communication categories concerning their relationship to situational variables; for example, almost all of the variables that were related to the communication categories of offering fact, offering preference, and offering motivation pertained to household operations and help with household duties. Identical variables were related to offering preference and accepting preference, i.e., household operations, amount of household help, and the number of community moves. All but two of the variables related to offering fact and not accepting fact pertained basically

to household operation and the amount of household help. The situational variables related to offering motivation pertained to household operation; those related to accepting motivation pertained to household operation and help with tasks.

The results, then, indicated that all the selected situational variables were related in some manner to mothers' communication to their children when:

1. Message units categorized as to modes were examined.
2. Message units categorized as to resources were examined.
3. Message units categorized as to mode-resource interaction categories were examined.

Therefore it appears that the coding procedure did identify variables indicating communication pattern. This is consistent with the findings of Bernstein, Hess and Shipman, Merrill, Olim et al., and Walters et al. which would lead one to believe that situational factors and communication are not independent.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

Summary

The randomly selected communication samples of nine mothers to their preschool children during shared activities within the home were part of the communication samples used in testing a procedure to gather data about family activity patterns. All of the mothers whose conversations were used as data had children enrolled in Michigan State University's Laboratory Preschool during Fall, 1966, and Winter, 1967. In six of the families, father, mother, and children were present; in the other three families, the fathers were absent.

The relative frequencies of the mothers' message units as they were categorized both as to the salient resources and the modes of transmission indicated that the mean percentage (or relative frequency) of message units delivered by the mothers to their children, when defined as to resource were: fact--52 percent; preference--7 percent; direction--38 percent; and motivation--3 percent. When the message units were defined as to mode, the percentages were: offering--69 percent, seeking--20 percent; accepting--8 percent, and not accepting--3 percent.

Significant differences between several means of the message units gave support to the coding system's successful separation of the mothers' communication to their children into independent components. The data also supported the feasibility of dividing Longabaugh's (1963) resource category of information into the two resources of fact and preference.

Communication modes. The selected situational factors of the home environment appeared to be related to the communicative patterns. When the message units were categorized as to modes, those situational variables related to the communications of all four modes were: number of community moves since marriage, time allocated for household duties, and amount of help with household duties. Additional variables specifically related to the mode of offering were family size and composition, mother's educational level, and father's daily hours from home because of employment. For the communications of seeking, the other related variables were family size and composition, mother's educational level, family income, and frequency of eating dinner together; while for the communications of accepting, related situational variables were mother's educational level, father's daily hours from home because of employment, family income, and frequency of eating dinner together. For the communications of motivation, the related variables were family size and composition, father's daily hours from home because of employment, and family income.

Communication resources. When the message units were categorized as to the communications of the different resources, those situational variables related to all four of the resources were: family size and composition, the number of community moves since marriage, the time allocated for household duties, and amount of help with household duties. Additional variables specifically related to the resource of factual communication were mother's educational level and family income. For communications of preference, the other related variables were father's daily hours from home because of employment, family income, and frequency of eating dinner together. For communications of direction or command, related situational variables were mother's educational level, father's daily hours from home because of employment, and the frequency of eating dinner together; while for the resource of motivation, related variables were mother's educational level, father's daily hours from home because of employment, and family income.

Mode-Resource category. When the message units were designated as to the specific mode-resource categories of communication, the situational variables were clustered both by the frequency and the similarity of occurrence into two groups. The variables most frequently related to the communication patterns were: the size and composition of the family, number of community moves since marriage, time allocated for household duties and the amount of help with household duties. The less frequently occurring variables were: mother's educational

level, father's daily hours from home because of employment, family income, and frequency of eating dinner together.

All of the variables related to the mode-resource categories of offering fact, offering preference, and offering motivation were similar and likewise those factors related to offering preference and accepting preference were alike. The situational factors associated with offering fact and not accepting fact were basically the same. Thus, patterns of variables related to some mode-resource categories appeared to be consistent for the same resource when in combination with different modes, or for the same modes when in combination with different resources. In one case, though, a combination of the situational variables that appeared to be related to offering motivation and seeking motivation were found to be related to accepting motivation.

Limitations

1. The first limitation was the small, non-random group of mothers from which the communication samples analyzed in this study were taken. Because of this limitation, it is not possible to generalize the results of this study to communication patterns of other mothers.

2. The second limitation was that one-third of the families had fathers absent from the home. This was a very important factor because of the small sample size.

3. A third limitation was inconsistency in data collection; the number of different days in which home activities were

taped for each mother-child dyad varied from one to four. The mother's communication to her child during four shared activities that were recorded in a single morning may have been different from that observed if activity periods had been collected on separate days, as was done for the other mothers. More diversity in individuals' temperament may be observed with recording on separate days. This diversity may be a major contributing factor in establishing reliable communication patterns between family members.

4. The diversity in the kinds of activities performed by the mothers and children was also a limiting factor. The participants were not asked to do specific activities, and the activities during which communication was recorded were not the same for the group. Also, the number of children participating in the activities varied. Generally one preschool child was present; yet in the activities of some families, two or more children were involved.

5. The presence of the observer during the observation period may have influenced communication between the mothers and their children by altering the home environment. The observer's role was to follow the mother-child dyad throughout the home while they engaged in their shared activity.

6. A limitation occurring during the transcription of the dating was the inability to code some message units from the tapes because they were indistinguishable. This resulted in a loss of some of the data.

7. Another limitation was the small sample of message units used. Eight five-minute random samples, or forty minutes of each mother's conversation to her child, may not have been representative of the communication patterns characteristic of that mother.

8. The limitation of the situational variables--both availability and reliability--should be noted. In three of the families it could not be determined whether father figures were present in the homes. Also, several of the variables were chosen because they were thought to control the pattern of family life and they were available. Finally, some of the information about the situational variables were obtained by self-report questioning and not by direct observation.

Implications for Future Study

Socio-economic environment. Findings from this study suggest that certain communication patterns of mothers to their children appeared to be related to situational variables. Communication studies may identify differences between mothers of different socio-economic environments and/or styles of living in the frequencies of different kinds of patterning stimuli offered by these mothers to other family members. Language styles used by mothers may, then, reflect differences within as well as between socio-economic levels.

Cognitive environment. If the growth of cognitive functions is mediated by experience and if the mother is a child's

principle teacher for the first five years of his life, then the strategies that a mother uses through communication to manipulate the child will have consequences for the ability of the child to grasp or learn in later teaching situations.

Decision making. If the association of language and situational factors do emerge in systematic relationships which have permanent effects on communication interaction, what effects will these combination of factors have on decision making activities? How do these decision making activities in turn help to regulate the nature and amount of communicative exchange?

Management style. Other useful studies would be those which would relate the communication patterns of homemakers to their styles of managing. Are their specific communications (mode-resource frequencies) that are characteristic of homemakers who are person centered and/or task centered? Do situational characteristics related to person- or task-centeredness appear to transcend socio-economic boundaries? What communicative patterns are characteristic of effective managers or of ineffective managers? How are communicative patterns of family members related to the utilization and development of their human resources in an effort to achieve family goals?

Bell and Vogel (1960) point out that the motivational committment of family members for the performance of tasks is reflected in the amount of help actually given (or received) by family members. The present study showed a relationship

between the mode-resource categories of seeking motivation and accepting motivation with the situational variable--the amount of child help with household duties. The amount of father's help, on the other hand, was related to the categories of offering fact, not accepting fact, and accepting preference. Why was father's help related to the resources of fact and child's help related to the resource of motivation? A study which would analyze the communication patterns and techniques employed by family members to induce task committment as reflected in the amount of family help actually given the mother would be another fruitful way of gaining a more complete understanding of communication's relationship as a management process to the other basic components of family management--values, goals, resources, family, management, environment, and problem situation.

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APPENDIX

Examples of Message Units From Each of the Sixteen Possible Mode-Resource Categories

Message units enclosed by parentheses, i.e., (. . .) indicate the message prior to the one presented as a category example.

I. Offering fact

A. "We can play it like the other records we got."
B. "Maybe we should ask her if she knows how to do this."
C. "You need a lot more."

II. Offering preference

A. "I bet that's what happened."
B. "I think the red all by itself is very pretty and enough."
C. ("See if there is anything you want.") "I want to keep this."

III. Offering directing

A. "Cut it off."
B. "Here."
C. "Let me try it once."

IV. Offering motivation

A. "Beautiful."
B. "I'm sorry."
C. "You boys are good bakers."

V. Seeking fact

A. "Is it there yet?"
B. "Do you have a big, long one?"
C. "What color is that?"

VI. Seeking preference

A. "Don't you want some cherry pie?"
B. "Is that pretty good?"
C. "Do you want to get down?"

VII. Seeking direction

A. "Should I pour it all in?"
B. "What am I to do now?"
C. "That fast?"

VIII. Seeking motivation

A. "Did I do that well?"
B. "Don't you think I will make a good cook?"
C. "Isn't my drawing pretty?"

IX. Accepting fact

A. ("I got hit.")
"Yea."
B. ("See a wolf likes to be hungry.")
"Oh."
C. ("It's falling apart right there.")
"Yea."

X. Accepting preference

A. ("It's a pretty green.")
"Unhuh."
B. ("I want to put blue in.")
"All right."
C. ("I want to put one of these Santa Clauses on the tree.")
"O.K."

XI. Accepting direction

A. ("Just a little bit more.")
"Yea."
B. ("Put this in the refrigerator.")
"All right."
C. ("See?")
"Yea."

XII. Accepting motivation

A. ("Thank you.")
"Your welcome."
B. ("You've done a handsome picture.")
"Thank you."
C. ("You can do it if you put yourself to it.")
"Yea."

XIII. Not accepting fact

A. ("You're making that all by yourself.")
"No I'm not."
B. ("That's Gunsmoke.")
"That's not Gunsmoke."
C. ("That's me.")
"No."

XIV. Not accepting preference

A. ("I think you will like that.")
"What!"
B. ("How about meat and spagetti?")
"Oh, I don't know, Tanya."
C. ("You can have chocolate or vanilla.")
"Forget it."

XV. Not accepting direction

A. ("Can I do that, Mom?")
"I'm going to try to cut it up into equal parts."
B. ("Keep it on the paper plate.")
"Not that one."
C. ("You can put it on.")
"Wait."

XVI. Not accepting motivation

A. ("You are great.")
"Be reasonable."
B. ("Thank you.")
"You're not welcome."
C. ("That's a beautiful picture you did.")
"It's awful!"

Table 10. Biographical and Descriptive Information about Families of the Sample

Family Number	Number of Males in Family	Number of Females in Family	Number of Family Members	Wife's Occupation	Husband's Occupation	Husband's hours from Home Daily	Family Income
1	4	1	5	None	Professional	6 to 9	$10,000
2	4	2	6	None	Clerical-sales	12 or more	12,000
3	2	2	4	None	Professional (Lawyer)	6 to 9	12,000
4	2	2	4	None	Professional (Student)	Less than 6	9,000
5	2	2	4	None (Student)	Professional	10 to 11	15,000 and over
6	1	2	3	Service Work (part time)	(Divorced)	20 and over	2,000
8	1	3	4	Clerical	(Single)	20 and over	3,000
9	3	2	5	None	Labor (Carpenter)	6 to 9	6,000
10	3	4	7	None	(Separated)	20 and over	4,000
Means	2.4	2.2	4.6			6 to 11	$8,666

Table 10 - Continued

Family Number	Frequency of Eating Dinner Together As a Family	Minimum Minutes in Meal Preparation	Maximum Minutes in Meal Preparation	Number of Weekly Wash Loads	Minimum Minutes Spent Doing Household Duties	Maximum Minutes Spent Doing Household Duties
1	Always	60	120	6	155	330
2	Usually	75	210	10	275	570
3	Always	95	240	5	70	180
4	Seldom	50	105	6	15	90
5	Usually	62	141	0	95	210
6	Always	60	120	4	215	450
8	Seldom	30	75	9	130	300
9	Always	70	150	8	214	450
10	Always	50	105	5	135	330
Means		61	140.6	5.8	145	323.3

Table 10 - Continued

Family Number	Number of Household Duties Father helps to do or does alone	Number of Household Duties Children help to do or do alone	Number of Household Duties Father, Children, or Hired Help do alone or help to do	Wife's Education	Husband's Education	Number of Community Moves Since Marriage
1	3	5	6	Some College	Advanced degree	3
2	6	4	8	College degree	Some college	3
3	5	3	9	College degree	College degree	3
4	6	1	7	College degree	Some college	8
5	3	3	3	Advanced degree	Advanced degree	6
6	(Divorced)	7	7	Some college		3
8	(Single)	4	4	High school graduate		0
9	5	4	6	High school graduate	Ninth grade	7
10	(Separated)	3	3	Ninth grade		7
Means	3.1	3.7	5.9			4.5

Table 11. The Number of Message Units for Each Mother in Each Communication Category

Mothers	Number of Message Units in Each Category																
	Offering fact	Offering preference	Offering direction	Offering motivation	Seeking fact	Seeking preference	Seeking direction	Seeking motivation	Accepting fact	Accepting preference	Accepting direction	Accepting motivation	Not accepting fact	Not accepting preference	Not accepting direction	Not accepting motivation	
1	70	5	88	2	70	28	5	0	9	5	9	0	2	1	1	0	295
2	253	1	73	9	76	7	1	0	47	0	8	1	13	0	3	0	492
3	92	14	173	32	34	23	9	0	26	15	16	0	6	0	4	0	444
4	78	7	112	9	6	5	2	0	9	2	9	0	4	1	4	0	248
5	135	5	105	19	38	18	5	0	14	7	7	0	6	0	2	0	361
6	81	1	95	3	52	8	2	2	14	5	0	0	6	0	9	0	278
7	14	0	83	1	37	2	0	0	1	0	0	0	0	0	0	0	138
8	50	0	120	4	39	6	0	0	8	0	1	0	10	0	2	0	240
9	30	0	67	3	31	9	0	0	4	2	1	0	1	0	0	0	148

Total = 2644

Mean = 293.7

Table 12. The Relationship Between Each Mode-Resource Category with Each Situational Variable Based on Simple Correlations[1]

Situational Variables	Mode-Resource Categories												
	Offering fact	Offering preference	Offering direction	Offering motivation	Seeking fact	Seeking preference	Seeking direction	Seeking motivation	Accepting fact	Accepting preference	Accepting direction	Accepting motivation	Not accepting fact	Not accepting preference	Not accepting direction	Not accepting motivation
Family size and composition																
No. males					x							x				
No females						xx					x					
Total no. in family								x								x
Mother's educational level	x	x		x			x			x	x	x				
Father's daily hours from home (work)		x	x								x			x		
Family income	x	x			x		x	x			x					
No. of community moves since marriage		x														
Amount of help with household duties																
Amount of father help	x									x		x		x		
Amount of child help					x			x								
Amount of all help		x	x							x		x		x		x
Time allocated for household duties																
Minimum time for meal prep.	x	x	x	x		x	x			x	x	x		x		
Maximum time for meal prep.	x	x	x	x			x			x	x	x		x		
Minimum time for household duties		x			x								x	x		
Maximum time for household duties		x			x								x	x		
No. weekly wash loads											x		x			
Frequency of eating dinner together						x										

[1]Values of correlational coefficients are $p \geq 0.50$.