DIFFERENCES IN HETEROPHILY AND COMMUNICATION INTEGRATION BETWEEN MODERN AND TRADITIONAL INDIAN VILLAGES IN TWO TYPES OF DYADIC ENCOUNTER

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ABSTRACT

DIFFERENCES IN HETEROPHILY AND COMMUNICATION INTEGRATION BETWEEN MODERN AND TRADITIONAL INDIAN VILLAGES IN TWO TYPES OF DYADIC ENCOUNTER

Ву

Dilip Kumar Bhowmik

The present dissertation deals with two major issues related to interpersonal communication: 1) heterophily among interacting dyads, and 2) communication integration in information-seeking and friendship communication. In formulating the problem, four questions were raised about communication systems in rural Indian villages. They are:

(1) Do heterophily relationships between sources and receivers differ from one communication situation to another?

(2) How are the heterophily relationships between sources and receivers related to the modernity levels of rural villages?

(3) Does the extent of integration through interpersonal contacts differ from one communication situation to modernity levels of rural villages?

(4) How is the degree of integration through interpersonal contacts related to modernity levels of rural villages?

Thus, the major objectives of the present study were: 1) to compare the degree of heterophily in information-seeking and friendship communication; 2) to compare the degree of communication integration in information-seeking and in friendship communication; and 3) to find out the relationships between modernity levels of rural Indian villages and (a) heterophily, and (b) communication integration.

Data used in the present study come from the Indian part of a larger study, "Diffusion of Innovations in Rural Societies," conducted in Brazil, India, and Nigeria, by the Department of Communication at Michigan State University. The present study is based on the analysis of the data from the second phase of the Indian research project, in which the purpose was to determine the factors affecting the innovative behavior of Indian farmers in rural settings. Data were obtained from 680 farmers in eight villages located in three states (Andhra Pradesh, Maharashtra, and West Bengal), through personal interviews.

Six general hypotheses were presented in the present study. Of the six hypotheses, three hypotheses deal with heterophily relationships of source-receiver dyads, and the other three deal with communication integration in information-seeking and friendship communication.

In the present study heterophily is measured as the absolute difference between interacting individuals on selected variables. Attempt was made to select those variables on which low heterophily is relevant in friendship communication and high heterophily is relevant in information-seeking communication. After obtaining each dyad's heterophily scores on the selected variables, factor analysis was used to determine heterophily dimensions.

Of the six hypotheses, only two were supported by our data. They are: 1) There is a greater degree of heterophily with respect to certain relevant attributes, among dyads engaged in information-seeking communication than in friendship communication; 2) communication integration in friendship communication is higher in more modern villages than in more traditional villages. Although no hypotheses were formulated comparing dyads engaged in both informationseeking and friendship communication with dyads engaged only

in friendship communication, our findings suggest that low heterophily in status dimension is relevant and perhaps necessary for friendship communication to occur, and high heterophily in change contact dimension is relevant and might be necessary for information-seeking communication to occur to rural villagers in India.

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Ву

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A THESIS

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iii

TABLE OF CONTENTS

Chapter .		Page
I.	INTRODUCTION AND THEORETICAL BACKGROUND	1
	Objectives	6
	Information-Seeking and Friendship Communication	7
	Source-Receiver Relationships: Heterophily in Information-Seeking and Friendship Communication	11
	A Conceptual Framework	14
	Modernization, Level of Modernity, and Heterophily	20
	Modernization and Communication Integration	25
II.	HYPOTHESES AND RATIONALE	29
	Heterophily in Information-Seeking and Friendship Communication	29
	Selection of Relevant Variables for Heterophily Analysis in Indian Villages .	32
	Information-Seeking and Friendship Communication and Village Modernity	41
	Communication Integration and Village Modernity	44

TABLE OF CONTENTS (cont.)

Chapter		Page
III. H	RESEARCH METHODOLOGY	47
	Data and the Sample	47
	Description of the Villages Studied	50
	Instrument Construction and Data Collection	52
	Operationalization of Concepts	54
	Data Analyses and Tests of Hypotheses	75
IV. H	FINDINGS	85
	Heterophily in Information-Seeking and Friendship Communication	85
	Heterophily in Information-Seeking and Friendship Communication and Village Modernity	96
	Communication Integration in Information- Seeking and Friendship Communication	99
	Communication Integration and Village Modernity	100
V. 5	SUMMARY AND CONCLUSIONS	103
	Summary	103
	Conclusions	112
	Implications for Change Agencies	113
	Suggestions for Future Research	115
BIBLIOGE	АРНУ	119
APPENDI >	K 	131

LIST OF TABLES

Table		Page
1.	Location and size of sample villages for the Phase II Study in India	51
2.	Zero-order product-moment correlation and average absolute differences as measures of heterophily among some hypothetical dyads in seven hypothetical villages	63
3.	Percent of total variance explained by the two rotated solutions meeting a Kiel- Wrigley criterion for terminating the factor rotation	67
4.	Heterophily scores on nine selected variables and factor loadings in the three-factor solution	68
5.	Rank-order of eight villages according to level of modernity	73
6.	Number of total, mutual, and common dyads in information-seeking and friendship communication	76
7.	Data-analyses and hypotheses-testing	80
8.	Average heterophily scores and standard deviations of heterophily scores, and the number of dyads involved in different types of communication situations	86
9.	Computed "t" values for differences between mean heterophily scores on each heterophily dimension for dyads involved in different	
	communication situations	89

LIST OF TABLES (cont.)

Table

able		Page
10.	Calculated "t" values for differences in mean heterophily on the selected variables among dyads in different communication situations	93
11.	Calculated "t" values for differences in mean heterophily on the selected variables among dyads in different communication situations.	94
12.	Spearman rank-order correlation between the degree of heterophily in information-seeking communication, and in friendship communica- tion, and village modernity	97
13.	Communication integration scores in information-seeking and friendship communi- cation in eight Indian villages	101
14.	Summary of results of the hypotheses tested in the present study	107

LIST OF FIGURES

Figur	Figure	
1.	Venn Diagrams showing the relationship between information-seeking and friendship communication	10
2.	Hypothesized degree of heterophily on dimen- sions composed of selected variables in information-seeking and friendship communi- cation in modern and traditional Indian villages	30
3.	Mean heterophily on status, change contact, and movie exposure for dyads engaged in different communication situations	88

CHAPTER I

INTRODUCTION AND THEORETICAL BACKGROUND

The present dissertation deals with two major issues related to interpersonal communication: 1) heterophily among interacting dyads, and 2) communication integration in information-seeking and friendship communication in Indian villages.

In recent years in the developing world, a common phenomenon is the process of modernization¹ through the diffusion of innovations. Interpersonal communication is the major channel through which messages about innovations flow to the majority of rural people.² Pye (1963, p. 27) suggests that "the process of development is less dependent upon increased investment in the modernized, urbanized, or mass media system than it is upon the adjusting of the informal, rural systems to each other and to the mass media system."

²And, in fact, to most other audiences, like medical doctors in the U.S. (Coleman and others, 1966).

^L<u>Modernization</u> is the process through which systems change from a traditional way of life to a more complex, technologically-oriented way of life.

Before any adjustment of the "informal" rural systems to each other and to the mass media system is possible (as suggested by Pye), an understanding of the informal communication systems¹ in rural societies is essential. For an understanding of these rural communication systems, the knowledge of the existing source-receiver relationships (which account for many aspects of communication, such as credibility, persuasibility, etc.), and the links of interpersonal contacts through which messages pass through in these rural societies are essential.

Guimaraes (1970a, p. 1) points out that in actuality many communication studies are studies of <u>individual behav</u>ior rather than <u>communication behavior</u>. Coleman (1958) reasoned that "survey research approaches were in part responsible for the heavy focus on individuals, rather than their relationships." <u>Communication</u> is a process of coupling or linking at least two individuals in a situation for interchange of ideas, opinions, expressions, etc. The "coupling" or "linking" between two individuals is better understood in terms of their relationships.

¹A <u>communication system</u> consists of a set of communicating (or potentially communicating) units (Guimaraes, 1970b, p. 8).

Pointing to the importance of source-receiver relationships, Berlo (1960, pp. 53-54) suggests, "A great portion of communication theory must be dyadic in nature. Our discussion and analysis must be phrased in terms of the relationships between communication ingredients, rather than in terms of the values of a particular ingredient for a given person." Typically, in most experimental communication research:

Studies looking at the influence of source attributes have controlled the influence of receiver differences either by using a variety of receivers assigned randomly to sources or by using only one kind of receiver. Studies of the influence of receiver attributes have controlled the influence of source differences in similar ways. Few studies have looked systematically at source-receiver interaction effects on communication success (Joyce; 1970, p. 4).

In any social system, an individual has a choice of the individuals with whom he may interact. An individual's choice of interacting with "someone" rather than others may also differ from one communication situation to another. Simons and others (1970) suggest that source-receiver relationships on <u>certain attributes</u> are psychologically relevant in persuasive communication. We raise the question of whether individuals, in deciding with whom to interact (in a particular communication situation), make their choices on

the basis of their relationship on relevant (relevant to the particular communication situation) attributes or variables. In other words, do high or low degree of heterophily¹ between source and receiver on certain attributes become more crucial in certain communication situations than in others?

Along with the process of modernization, all aspects of human activity undergo transformation at the same time (Black, 1966, p. 9). Rural, informal communication systems in developing societies had been stabilized for generations. The pattern of who interacts with whom had been "informally formalized" over time. "Communication flows almost entirely horizontally" in traditional villages (Rao, 1966, p. 43). What is the extent of difference between modern and traditional villages regarding sourcereceiver relationships?

As mentioned earlier, an understanding of the informal rural communication systems is not complete, without the knowledge of the degree to which the individuals in these rural societies are interconnected through interpersonal communication links. Are the rural societies so

¹<u>Heterophily</u> is the degree to which pairs of interacting individuals are dissimilar in attributes.

integrated that once a message reaches a few members, it diffuses through a maze of interpersonal relationships or is it restricted within certain distinct groups? Studies dealing with integration or cohesiveness have been limited mostly in small groups (Blau, 1960; Lott and Lott, 1965; Cartwright, 1968; and Schachter, 1968). Only in recent years, some communication researchers (Rao, 1966; Yadav, 1967; and Guimaraes, 1970b) have given some emphasis on studying integration through interpersonal communication in larger systems. The questions--as the process of modernization progresses in rural societies, how the members adapt to the new environment in terms of their communication behavior and in their interpersonal relationships-have not yet been explored fully.

Thus, the four basic questions regarding rural communication systems presented in the present section are:

1. Do the homophily-heterophily relationships between sources and receivers differ from one communication situation to another?

- 2. How are the homophily-heterophily relationships between sources and receivers related to the levels of modernity¹ of the rural systems?
- 3. Does the extent of integration through interpersonal contacts differ from one communication situation to another?
- 4. How is the degree of communication integration² related to the levels of modernity of rural systems?

Objectives

The main objectives of the present study are:

- To compare the degree of heterophily in informationseeking and in friendship communication.
- To compare the degree of communication integration in information-seeking and in friendship communica-

tion.

¹Level of <u>modernity</u> of a system is its relative condition or state in the modernization process compared to other systems at a particular point of time.

²<u>Communication integration</u> is the extent to which units of a social system are interconnected through interpersonal communication links.

3. To compare the degree of (a) heterophily and (b) communication integration in modern and in traditional villages.

Information-Seeking and Friendship Communication

<u>Information</u>¹-<u>seeking</u> communication occurs when an individual interacts with another to obtain information, advice or evaluation for making certain decisions. <u>Friend-</u> <u>ship communication</u> occurs when an individual interacts with another to have an informal and intimate affective association.

On the basis of the kind of motivation which initiates the interaction, Festinger (1950) differentiates between two types of communication: "instrumental" and "consummatory." In instrumental communication, the need is to "reduce the discrepancy that exists between source and receiver, whereas in consummatory communication the reduction

¹<u>Information</u> is transferred patterned matter/energy between any system and its environment or between elements in a system, leading to either increasing or decreasing the number of perceived alternatives in any decision-making situation and/or providing logic for the alternatives (motivational) and/or how to attain the alternatives (instructional) (Berlo, 1969).

of the force to communicate occurs as a result of the expression and does not depend upon the effect it has on the receiver." On the same line of thought, Bordenave (1966, p. 9) differentiates instrumental and consummatory content on the basis of their application: 1) instrumental content is used to modify an individual's behavior; and 2) consummatory content is used to produce a sensation of well-being in oneself.

Blau (1962) classified interpersonal relationships on the basis of: 1) purpose of an interactional choice and 2) whether the choice represents an actual interaction or a preference. On the basis of purpose, Blau (1962) differentiated between social and instrumental interaction. Social interaction occurs when an individual interacts with another (or prefers to interact with another) person to derive satisfaction from the association and not for the promotion or achievement of a specific purpose. Instrumental interactions are basically goal oriented; that is, there is at least a specific purpose of promotion or achievement involved in the initiation of such interaction. In a recent study, Lionberger and Campbell (1971) followed Blau's (1962) classification and studied social and informational relationships among farm operators in a Missouri community.

Although, conceptually instrumental and social interactions are considered mutually exclusive, empirically it is hard to consider them as such (Figure 1).¹ Berlo (1960, p. 17), pointing toward the difficulty of the assumption of mutual exclusiveness of instrumental and consummatory purposes of communication, suggests that there is a need to place the purpose of communication on a consummatory-instrumental <u>continuum</u> rather than to regard it as a dichotomy.² Thus, the assumption that friendship communication is always consummatory is questionable. We assume that in friendship communication, the content tends to be more consummatory than instrumental.

¹Most interactions between a student-teacher dyad, say A and B, are instrumental; suppose both A and B live in the same neighborhood, they may have also some social interactions between them.

²Although we agree to the notion of a consummatoryinstrumental continuum, our measures for informationseeking and friendship communication are dichotomous, rather than continuous.



Information-Seeking Communication

> Fig. 1.--Venn Diagrams showing the relationship between information-seeking and friendship communication.

Source-Receiver Relationships: Heterophily in Information-Seeking and Friendship Communication¹

Source-receiver relationships are conceptualized in terms of who interacts with whom. One way of organizing the analysis is to determine the relationships between the "who" and "whom," that is, to determine the degree of heterophily between source and receiver.

Heterophily is the degree to which pairs of interacting individuals are dissimilar in attributes.

The terms "homophily" and "heterophily" were originally used by Lazarsfeld and Merton (1954), and have since then been used by several communication researchers (Chou, 1966; Yadav, 1967; Ho, 1969; and Sen, 1969); some social scientists, however, have mainly used "similaritydissimilarity" in their studies (Blau, 1962; Byrne, 1961; Jones and Daughtery, 1959; Runkel, 1956; Triandis, 1959; and many others). Homophily-heterophily is conceptualized at the individual level (Feldman, 1966), dyadic level (Chou, 1966; and Yadav, 1967), and system level (Ho, 1969), with individuals, dyads, or social systems as the units of analysis, respectively. In studying friendship relationship,

¹Some aspects of heterophily discussed in this section are from Rogers and Bhomik (1971).

Lazarsfeld and Merton (1954) used "homophily" and "heterophily" as dichotomy of relationship. <u>Homophily</u> is the degree to which pairs of interacting individuals are similar in attributes. In the present study, homophily-heterophily are conceptualized as polar concepts. If there is a greater degree of heterophily between individuals A and B, then there is a lesser degree of homophily abetween A and B. Similarly, if there is a lesser degree of heterophily between A and B, then there is a higher degree of homophily between A and B.

Studies¹ dealing with similarity-dissimilarity of dyads, interpersonal attraction, and interaction suggest that (1) similarity between individuals (on values, attitudes, cognitions, status, prestige, etc.) is related to interpersonal attraction, and (2) interpersonal attraction is related to frequency and/or effectiveness of communication.

In persuasion research, it is widely assumed that communicators who are similar (that is, homophilous) to their audiences are more likely to effect persuasion than

¹For example, Barlund and Harland (1963); Blau (1962); Broxton (1963); Byrne (1961); Festinger and others (1950); Larsen and Hill (1958); Lazarsfeld and Merton (1954); Newcomb (1956); Runkel (1956); Smith (1957); and Triandis (1959). For a general review of studies on similarity-dissimilarity, see Simons and others (1970).

those sources who are dissimilar; that is, sources having heterophilous relationships with receivers are less effective in persuasion (Berscheid, 1966; Bettinghaus, 1968; Brock, 1965). More effective communication of meaning is found among individuals who belong to the same generation or have similar past experiences (Wood and others, 1971; Vick and Wood, 1969). In contrast to the proposition about homophily-persusasion, Simons and others (1970) suggest that some degree of heterophily between sources and receivers makes the sources more credible and competent, thereby leading to greater persuasion.

Klapper (1960, pp. 34-35) describes the opinion leader¹ as "a kind of super representative of his own group"; he is more competent within his specialty and has access to wider sources of pertinent information. Lazarsfeld and Menzel (1963) found that opinion leaders from whom information was sought were generally more competent, more interested, better informed and more gregarious than the seekers, and had access to wider sources of information.

¹An <u>opinion leader</u> is an individual who is sought by more members of a system than others, for information, advice, or opinion. Studies dealing with opinion leaders have often used monadic analysis. An analysis is <u>monadic</u> when a concept is defined in terms of one person without reference to his relationships with others and individual is used as the unit of analysis.

Lionberger (1953, 1955) noted that opinion leaders function as such because they are more competent than those who seek information.¹ In a study of medical opinion leadership among the middle-aged and elderly, Booth and Babchuk (1972) found that the active opinion leaders were different in a number of ways from opinion-seekers; they were well-read and had first-hand knowledge of the health facilities or personnel about which they offered advice. Greater similarity among friends than among non-friends with respect to a variety of issues have been reported by several researchers (Bonney, 1946; Loomis, 1946; Newcomb, 1956; Precker, 1952; Richardson, 1940; Winslow, 1937).

A Conceptual Framework

The studies of similarity-dissimilarity between sources and receivers, persuasion, opinion leadership, and friendship, provide somewhat conflicting evidence about heterophily relationships between sources and receivers. For a better understanding of such conflicting evidence

¹Rogers with Svenning (1969, p. 237) observes a general tendency for information-seekers to obtain information from opinion leaders who are somewhat more competent in technical knowledge and more innovative.

of source-receiver relationships, some basic questions need to be raised: Heterophily on what, and why?

Pointing to the prevalent notion that similarity between individuals leads to greater interpersonal attraction, Newcomb (1956) suggests:

It [the notion of similarity leading to greater interpersonal attraction] is not a useful notion, however, because it is indiscriminate: We have neither good reason nor evidence for believing that persons of similar blood type for example . . . are specially attracted to each other. The answer to the question "Similar to what?"--is enormously complex.

Though the answer to the question--homophilyheterophily on what?--<u>is</u> complex, attempts need to be made to find out the basic relevance of attributes in particular communication situations. Simons and others (1970) differentiate between relevant and irrelevant similaritydissimilarity (on attributes) on the basis of how similarity-dissimilarity on certain attributes are "psychologically relevant" in a particular communication situation. Joyce (1970, pp. 1-2) posits that in a communication situation, where source and receiver are <u>completely</u> alike--a rare event--the source will be able to transmit a message

with perfect fidelity, but the message will be totally redundant and it will have no information for the receiver.¹

Berlo and others (1969) in their factor analytic study, found three independent dimensions for the construct of "dimensions for evaluating message sources": Safety, qualification, and dynamism. In using the three dimensions as an index of source credibility, they suggest the following scales as most representative:

- 1. Safety: Safe-unsafe; just-unjust; kind-cruel;
 friendly-unfriendly; honest-dishonest;
- 2. Qualification: Trained-untrained; experiencedinexperienced; skilled-unskilled; qualifiedunqualified; informed-uninformed;
- 3. Dynamism: Aggressive-meek; emphatic-hesitant; bold-timid; active-passive; energetic-tired.

In any communication situation, in making a choice with whom to interact, individuals evaluate others on the safety, qualification, and dynamism dimensions. The

¹The amount of information one person can give another about a phenomenon is defined as equivalent to the difference between their perceptions of that phenomenon (Rapoport, 1953, pp. 54-55, as quoted in Joyce, 1970).

question of "heterophily on what, and why" can be explained by considering the importance of some dimensions for evaluating sources in a particular communication situation. Although we know that individuals evaluate others as message sources, we do not know what characteristics of others become relevant, and what kind of relationship (degree of heterophily regarding the relevant characteristics) make others safe, qualified, and dynamic. Are the three dimensions of evaluating sources equally valued in different communication situations, such as information-seeking and friendship communication?

Individuals who are sought for information, advice, or opinion, are trained, experienced, skilled, qualified, and informed, or at least that is how they are perceived by the information seekers. Safety dimensions include a general evaluation of the affiliative relationships between interacting individuals. When the purpose of communication is to seek information, advice, or opinion, more importance or weight is given to qualification dimension than others,¹

¹Although in evaluating a source all three dimensions are considered, some are more emphasized in one communication situation than in another. The dynamism dimension of the source is probably equally emphasized in both information-seeking and friendship communication.

i t 0 t C he ir di fi tw ci ot. de On ano a s of Cer is _I code in evaluating sources. In friendship-communication, it is the safety dimension which is given more weight than others.

An individual should be more qualified, more trained, more experienced, more skilled, and more informed, to be perceived as a qualified source in information-seeking communication. Thus, there has to be some high degree of heterophily between information-seekers and soughts according to certain attributes which are considered to be the differentiating attributes between qualified and unqualified individuals. The attributes which differentiate between the qualified and unqualified may vary from one social system to another, and from one point of time to another. To be perceived safe, friendly, kind, etc., a lower degree of heterophily is desired. The relevant attributes on which low heterophily is needed depend on social norms and values.

It is evident from the previous discussion that for a source to be qualified, there should be some high degree of heterophily between the source and his receiver. But in certain types of information-seeking, the safety dimension is much more emphasized, such as, seeking information about abortion, venereal diseases, and other taboo topics. In a

study of seeking an abortionist, Lee (1969, p. 144) found that "both numerically and socially, the most important channels" used in seeking the "invisible" service of an abortionist, were "intimate 'friends'--equal age and equal status contact between people who voluntarily associate with each other, sharing leisure time activities." Lee (1969, p. 141) also observed that the sources who were of different generations (parents, children), different authoritative levels (employers, teachers, school authorities, etc.) were intentionally avoided by the abortion-seekers. Thus, when the information sought is highly confidential, the safety dimension becomes more important in evaluating message sources.

Duff (1971) observed that in mixed residential areas in a Philippino city, the lower-middle class residents function as sources of information for their lower-class neighbors, increasing the quality and quantity of information (about family planning) circulating within the lowerclass neighbor groups, whereas in a segregated (all lowerclass residents) area, the residents were relatively deprived with respect to information on family planning. Duff's study (1971) suggests that some high degree of heterophily in socio-economic status between source-receiver

in the Philippines facilitates rapid diffusion of certain confidential type of information or ideas. In another study of strawberry growers in Canada, Alleyne and Vernor (1969, pp. 54-56) found (1) a high degree of heterophily among dyads on the basis of their innovativeness, and (2) a low heterophily on the basis of ethnic origin of the dyads engaged in information-seeking communication. Alleyne and Verner's (1969) findings suggest that the qualification dimension was attributed to innovativeness, whereas the safety dimension was attributed to ethnic origin.

Considering the three dimensions of evaluating sources, one may assume that in any communication situation, both high heterophily and low heterophily on relevant attributes are necessary conditions for any communication to occur. The empirical questions needing answers are: How much, on what attributes, in which communication situations (if information-seeking, what type of information)?

Modernization, Level of Modernity, and Heterophily

Modernization has been conceptualized in many different ways by social scientists. A precise common meaning
for modernization has yet to be evolved (Weiner, 1966, p.
2; and Sen, 1968). Weiner (1966, p. 3) summarizes how different social scientists view modernization:

Economists view modernization primarily in terms of man's application of technologies to control natural resources to bring growth of per capita income. Sociologists and social anthropologists have been primarily concerned with the process of differentiation that characterizes modern societies. Political scientists have emphasized the problem of nation and government building as modernization occurs.

Black (1966, p. 9) suggests that "all aspects of human activity have been undergoing transformation at the same time, and the process of modernization is too complex to be reduced to simple terms without the danger of grave distortion." Rao (1966, p. 7) uses the term "development" to refer to "the complicated pattern of economic, social, and political changes that take place in a community as it progresses from traditional to a modern status."

Rogers with Svenning (1969, p. 14) define modernization as "the process by which individuals change from a traditional way of life to a more complex, technologicallyoriented and rapidly changing way of life." We conceptualize modernization as a multi-dimensional process, and define modernization as the process through which systems (individuals, villages, nations, etc.) change from a

traditional way of life, to a more complex, technologicallyoriented way of life. Level of <u>modernity</u> of a system is its relative condition or state in the modernization process as compared to others at a particular point in time.

It is realized that as the process of modernization proceeds, various aspects of human activity continually interact and undergo transformation (Black, 1966, p. 9). Seldom have diffusion researchers inquired about what happens to interpersonal relationships between sources and receivers as the process of modernization progresses in a social system. Yadav (1967) found lower heterophily (a higher degree of homophily) with respect to innovativeness and agricultural knowledgeability in information-seeking communication in a traditional social system than in a modern system. Rogers with Svenning (1969, pp. 230-231) found that in information-seeking communication, there was a higher degree of heterophily (with respect to innovativenss and social status) between sources and receivers in modern systems than in traditional systems. Van den Ban (1963) reports a higher degree of heterophily with respect to innovativeness in modern than in traditional systems in the Netherlands.

The communication process in traditional societies is intimately related to the basic structure of these

societies. In contrast to modern systems, in traditional systems information flow from "who" to "whom" is largely dependent on ascribed status relationships and personal ties. Reliability of messages is accounted for by personal relationships between interacting individuals. As Pool (1963, p. 242) put it, "Distrust of those who are not in one's own family, tribe, or caste dominate any objective test of truth [of messages] in most economically nonexpansive societies." In traditional societies, communication flows almost entirely horizontally and is limited within distinct peer groups (Rao, 1966, p. 43).

Although Rao (1966, p. 100) suggests that "the informed person has always commanded respect in traditional societies," the criteria (ascribed vs. achieved) used to evaluate the "informed persons" in traditional societies are different than in modern ones. Most communication flows (both information-seeking and friendship communication) in traditional villages are restricted within closelyknit family, peer, and caste groups. In traditional systems, where almost all human activities are somewhat repetitious, generation after generation, persons with higher ascribed statuses (such as age) are judged more experienced, qualified, skilled, and more "informed."

Modernization, along with its various components (economic, political and social development), brings a new environment and a whole "new psychology." Education becomes more popular, individuals are more exposed to mass media and more people desire to be informed. The new environment brings a marked change in interpersonal communication patterns. "Communication helps shift influence from age and traditional status to knowledge and ability" (Rao, 1966, p. 100). Individuals seek information from those who are informed; the differentiating attributes of informed and uninformed persons being evaluated by their level of education, mass media exposure, knowledge, etc. Thus, a new set of characteristics becomes relevant in evaluating the qualification dimension of informed sources.

Although, in general, friendship communication tends to be directed to those who live in similar situations, enjoy similar status and are similar, the boundary of one's peer group is broadened from the closely-knit family and caste groups, etc., to the larger community, as the systems modernize. Any communication between two <u>completely</u> dissimilar individuals is dissonance-producing; this is more so when the purpose of interaction is to have affective, informal association. But with the new inputs

of modernization (education, mass media exposures, and a general awareness of community, etc.), individuals are able to have friendship interaction with others who are somewhat dissimilar. In other words, a change in the range of differences in the criteria for evaluating safety dimensions of sources takes place as systems modernize.

Modernization and Communication Integration¹

Integration has long been a subject of interest for social scientists. Studies dealing with integration can be broadly grouped under two headings: 1) integration of society, nation or state, and 2) interpersonal and group integration. Durkheim (1960), Sorokin (1937, 1951), and Smend (1928)² are the pioneers in the study of integration in society. Social integration has been conceptualized as: 1) consensus of beliefs and values among members of society and 2) interdependence of members in terms of services (Durkheim, 1960).

¹The present review of studies dealing with integration is largely based on Guimaraes (1970b).

²Based on an article about some of Smend's works on integration theory by Landecker (1950).

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In small group research, group integration has been studied in terms of group cohesiveness. Blau (1960) defines group cohesiveness "as the prevalence of integrative bonds among group members." When the members of a group are interlinked with ties of social attractions, the group is cohesive. Social integration of a group is a function of group cohesiveness, which in turn, depends on members' attraction to each other. Several social scientists (Lott and Lott, 1965; Cartwright, 1968; Schachter, 1968) have studied group cohesiveness in terms of interpersonal attraction.

Landecker (1951) identified three types of social integration: 1) communicative; 2) normative; and 3) functional. <u>Communication integration</u> is the extent to which the units of a social system are interconnected through interpersonal communication links. Smend (1928) suggests that integration through persons can be either "direct" or "indirect." Direct integration through persons occurs when individuals interact face-to-face. Indirect integration occurs when the integrative relationship between individuals is transmitted through one or more intermediaries. <u>Normative integration</u> is the extent to which the conduct of members of a social system conforms to system

says Rao (1966, p. 30). In modern systems, communication literally takes the form of the society itself, whereas in traditional villages it is limited to specific groups. Although there is less difference between the <u>amount</u> of interpersonal communication in modern and in traditional societies, in modern systems it is faster, more complex, and more extensive (Rao, 1966, pp. 57-59; Schramm, 1963, p. 34).

Thus, the present empirical study is designed to find out the degree of (1) heterophily on certain relevant attributes, and (2) communication integration in information-seeking and friendship communication; and (3) relationship between level of modernity of rural Indian villages, degree of heterophily among source-receiver dyads, and communication integration.

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CHAPTER II

HYPOTHESES AND RATIONALE

In line with the objectives outlined in Chapter I, six general hypotheses are presented in the present chapter. Of these six hypotheses, three hypotheses deal with heterophily relationships of source-receiver dyads (Figure 2); and the other three hypotheses deal with communication integration.

Heterophily in Information-Seeking and Friendship Communication

General Hypothesis 1: There is a greater degree of heterophily with respect to certain relevant attributes, among dyads engaged in informationseeking communication than in friendship communication.

In the previous chapter, while discussing heterophily, we concluded that in any communication situation both high heterophily as well as low heterophily on relevant attributes are necessary. Festinger (1950), Back (1951), Festinger and Thibaut (1951), and Schachter (1951) Low



Fig. 2.--Hypothesized degree of heterophily on dimensions composed of selected variables in information-seeking and friendship communication in modern and traditional Indian villages.

pre by ser inċ McG stu pos sys oth shi sys dis sim the ien In emp rela not hypo foun present evidence that communication behavior is initiated by perceived discrepancies of opinion. Others have presented evidence that communicative exchanges occur where individuals perceive their views to be similar (Altman and McGinnies, 1960). No attempt had been made in these earlier studies to attribute these conflicting findings to the "purpose" involved in the communication process. In a rural system, individuals are continually interacting with each other in several relationships. Through these relationships, individuals gain new information about others in the system and thus their perception of others being similar or dissimilar is dependent on the degree of differences or similarities on some characteristics.

When an individual seeks information from another, the other person should be more knowledgeable, more experienced, more qualified, and should also be safe and dynamic. In friendship communication the safety aspect is more emphasized.

There has been only one study (Chou, 1966) which relates directly to our General Hypothesis 1. Chou did not find support¹ for her general hypothesis of greater

¹Although Chou (1966) did not find support for the hypothesis for all three Colombian villages together, she found support for greater homophily in friendship

greater homophily (lower heterophily) in friendship communication than in information-seeking communication, except for one variable: innovativeness. The reason that Chou did not find support for other variables such as age, social status, literacy, mass media exposure, social participation, etc., might be that in information-seeking communication in Colombian villages, innovativeness is the relevant attribute on which informed sources are evaluated.

Selection of Relevant Variables for Heterophily Analysis in Indian Villages

In selecting the variables in the present study, we attempted to select variables on which low heterophily is relevant in friendship communication and high heterophily is relevant in information-seeking, in order to enable us to distinguish the characteristics which differentiate the intracting dyads' relationships.

Traditionally in rural India, higher status had been accorded to the scholar priest and the rulers (or landlords) because they were the informed persons.

communication in the most traditional village with respect to literacy, mass media exposure, cosompoliteness, social participation, age, and social status.

Education was a "luxury" which only the rich could afford. Thus information and knowledge were a monopoly of the ruler-priest class. The social structure of rural societies was highly stratified through the caste system. In seeking information, it was difficult for an individual of a lower caste to cross one, two, three, or more steps of caste barriers. Even in their housing arrangements, different caste groups had, and even have now, their houses located in distinctly different sections of villages (Rao, 1966, p. 10). Thus all communication activities (both information-seeking and friendship communication) were limited to occur within specific groups. In informationseeking, the crucial attribute which was considered important in evaluating the qualified information-giver was age. Human activities in such traditional societies were repetitious and information passed from older, experienced information-givers to younger information-seekers.

The introduction of education, mass media, and technological innovations brought new information and new knowledge about alternate human activities. The kind of information individuals in rural societies once sought was different than the kind of information sought now. Thus the shift in the criteria of influence from age and

traditional status, to knowledge and ability. An information source, to be qualified, should be more knowledgeable, and more competent. To be more knowledgeable, the information source should have more education, more mass media exposure, more outside contact, and have more access to other information sources; and to be more competent, he should be more innovative than the seekers. Historically, the higher caste members have enjoyed economic advantages, and it was they who could afford to educate their children and they were the ones who could read newspapers, buy and listen to radios and also understand the language used in radio programs.¹ Thus, differences in caste and level of living also become indirectly relevant in information-seeking communication.² Although the information sources are more knowledgeable and competent than the seekers, they are safe as they are part of the same community and share the common values and norms of the community.

Interpersonal attraction is of more importance in a communication situation where the purpose is to have

¹Although the language in a state is the same, the dialects differ from one part to another and the radio stations' broadcasts are mostly in the language of city people.

²As the data for the present study come from a larger study, which focused on the diffusion of agricultural

informal affective association. Interpersonal attraction stems from attitude similarities. Individuals in rural societies who experience similar living conditions generally share similar attitudes. Although we agree that individuals connected with friendship bondage are not completely alike, their differences in educational level, mass media exposure, outside contact, etc., are lesser than among the source-receiver dyads engaged in informationseeking communication. Thus a greater degree of heterophily on the following selected variables is more relevant in information-seeking than in friendship communication.¹

1. Caste

<u>Caste</u> is a category of individuals' ascribed positions is a ritual hierarchy. An individual's caste rank is determined on the basis of his acceptance of drinking

innovations, our selection of variables is restricted. Attitudinal variables (affecting credibility) were not measured in the larger study and could not be included in the present investigation.

¹Evidence of heterophily on the selected variables in information-seeking communication also comes from past research on opinion leadership: Carlson (1965); Patel (1964, 1966); Sen (1969); Troldahl and Van Dam (1965); Lionberger (1953, 1955); Rogers and van Es (1964); Rogers and Leuthold (1962); Rahim (1961, 1965); Emery and Oeser (1958); Rogers and Burdge (1962); Savale (1966); Kahlon and Kaushal (1967); and Radudkar (1960).

wat car bu Ca pr in SC fc ba Vj 1 Ŀ S i V 9 2 water and cooked food from others. If a person of caste B can accept food and drinking water from a person of caste A, but not vice versa, then caste A is ritually higher than caste B.

Sen (1969, p. 24) found caste to be one of the best predictors of opinion leadership in India, suggesting that information-seeking communication is directed towards persons of higher castes rather than lower castes. Bose (1967) found a marked degree of low heterophily (homophily) on the basis of caste in friendship communication in an Indian village.

Individuals belonging to the same caste share similar values and beliefs, etc., and are more likely to communicate with others of the same caste. In informationseeking communication (when the issue on which information is sought is not directly related to ritual beliefs) individuals seek out knowledgeable and competent others who are of different castes.

2. Level of Living

Level of living is the extent of an individual's possession of indicators of wealth. Caste provides ascribed status to individuals, and level of living provides

achieved status. As discussed earlier, since both caste and level of living are associated with other variables which determine who is more knowledgeable and competent, they become important in structuring interpersonal communication in Indian villages.

3. Education

In a changing society like India, formal education affects communication flow in social systems. Bose (1967) found a high degree of homophily on education in friendship communication in an Indian village. Sen (1969, p. 24) found a positive relationship between education and opinion leadership, which indirectly implies that there is heterophily with respect to education between information-givers and information-seekers.

4. Mass Media Exposure

Media exposure such as the movies, radio, newspapers, etc., is an important attribute which makes one more knowledgeable than others. In information-seeking communication, individuals seek information from those who have more exposure to mass media. In friendship

communication, if the individuals' knowledge level is too different (probably due to differences in the degree of exposure to mass media), they may not have common issues to discuss in their affective relationship.

5. Cosmopoliteness

<u>Cosmopoliteness</u> is the degree to which an individual is oriented outside of his immediate social system (Rogers with Svenning, 1969, p. 147). An individual's outside orientation makes him more knowledgeable, and thus he becomes a source of information in traditional societies. Cosmopolite individuals link the village system with external systems from which most new ideas come. The role of cosmopolites as linkers is of great importance in societies where use of the mass media is limited.

Merton (1957, pp. 387-420) found that cosmopolites belonged to more organizations than the localites, they were more willing to live elsewhere, and they made friendships with other cosmopolites. Menzel (1960) found that individuals who were in touch with the outside world received more information about innovations than those who were not. By virtue of their greater contact with external

systems, cosmopolites have more information and they are sought by the localites for information.

In friendship communication, as suggested by Merton (1957, pp. 387-420), cosmopolites like to interact with other cosmopolites, and localites interact with localites.

6. Change Agent Contact

Beyond media exposure and outside orientation, the other source from which individuals in rural India gain information are change-agents from development agencies. <u>Change agent contact</u> is the degree of an individual's interaction with professional representatives of change agencies.

Emery and Oeser (1958, p. 50) and Rogers and Burdge (1962) in their studies in Australia and the U.S., respectively, concluded that leaders from whom information was sought, were more likely to have a higher degree of change agent contact than others. Information-seeking communication is expected to occur between an individual with a higher degree of change agent contact and another individual with a lesser degree of change-agent contact. The assumption is that if individuals have more or less the same degree of change agent contact, there is less of an information gap between the two, and hence less informationseeking. Rather, individuals with more or less the same degree of change-agent contact engage in friendship communication.

7. Innovativeness

<u>Innovativeness</u> is the degree to which an individual is relatively earlier in adopting new ideas than the other members of his social system (Rogers, 1962, p. 19).

Studies in the U.S., the Netherlands, and Colombia (Lionberger, 1955 and 1959; van den Ban, 1963; Rogers and van Es, 1964) indicate that information is sought from individuals who are more innovative than the seekers. Emery and Oeser (1958, p. 49) found the same result in Australian farm communities. Information-seeking communication in villages is concerned with innovations; a low innovative individual will seek information from another individual who is more innovative.

Our argument of lesser heterophily with respect to innovativeness in friendship communication is similar to that discussed in the section dealing with change agent contact. If individuals are too different with respect to innovativeness, an affective friendship relationship is

less likely to occur.

Empirical Hypothesis 1: There is a greater degree of heterophily with respect to the dimensions of caste, education, level of living, radio listening, newspaper exposure, movie exposure, cosmopoliteness, change agent contact, and innovativeness among dyads engaged in information-seeking than in friendship communication.

Information-Seeking and Friendship Communication and Village Modernity

General Hypothesis 2: There is a greater degree of heterophily among dyads engaged in informationseeking communication in more modern villages than in more traditional villages.

General Hypothesis 3: There is a greater degree of heterophily among dyads engaged in friendship communication in more modern villages than in more traditional villages.

Few researchers have inquired about what happens to interpersonal relationships between sources and receivers in rural societies as they modernize. Yadav (1967) studied source-receiver relationships in both informationseeking and friendship communication situations in two Indian villages, one more modern than the other. He hypothesized a greater degree of homophily in both communication situations in traditional social systems than in modern systems. Yadav found support for his hypothesis only with respect to innovativeness and agricultural knowledgeability in information-seeking communication. Yadav (1967, pp. 183-188) presented some methodological and theoretical arguments for his unsupported hypothesis such as that the study was limited to only two social systems; the number of information-seeking dyads was very few, whereas there were a large number of friendship dyads (individuals were allowed to make a choice of six friends as compared to three choices in information-seeking).

As systems become more modern, individuals make more "objective" evaluations of other individuals from whom they seek information. In less modern villages, age and other social status are the criteria on which the information-sources are evaluated as to whether they are qualified or unqualified. In modern villages, individuals seek information from persons who are more innovative, more educated, have more media exposure, etc., and so are more knowledgeable and competent.

In traditional systems, individuals' friendship interactions are limited within close-knit family and caste

groups; as the systems modernize, the boundary of one's peer group is broadened to include members of the larger community. The hierarchy of social relationships¹ changes because of the new awareness. With education and media exposure the traditional norms of social relationships are no longer followed and individuals no longer feel uncomfortable in having friendship communication with others who are somewhat dissimilar.

Empirical Hypothesis 2: There is a greater degree of heterophily with respect to the dimensions of caste, education, level of living, radio listening, newspaper exposure, movie exposure, cosompoliteness, change agent contact, and innovativeness among dyads engaged in information-seeking communication in more modern villages than in more traditional villages.

Empirical Hypothesis 3: There is a greater degree of heterophily with respect to the dimensions of caste, education, level of living, radio listening, newspaper exposure, movie exposure, cosmopoliteness, change agent contact, and innovativeness among dyads engaged in friendship communication in more modern villages than in more traditional villages.

¹In traditional Indian villages, when individuals of different castes, different socio-economic levels, etc. are invited to a marriage dinner, they are seated separately. This provides an example of how affective friendship between high and low (on any attribute) individuals is impossible in traditional villages.

Communication Integration and Village Modernity

General Hypothesis 4: Communication integration is higher in information-seeking communication than in friendship communication.

Communication integration (the degree of interconnectedness among members of a social system) is a necessary condition to achieve normative integration in any society. Although normative integration is acheived through both information-seeking and friendship communicative integration, in a society where transformation of normative integration is in progress, information about new ideas and norms diffuses more through the information-seeking communication structure. Once the members of a society accept the objectives of this transformation, individuals cross different traditional barriers of caste, status, education, etc., to obtain information. Thus, in changing societies like India, we expect individuals to be more inter-connected through direct or indirect interpersonal communication links in information-seeking communication situations than in friendship communication.



Empirical Hypothesis 4: Individuals are more interconnected through interpersonal communication links in information-seeking than in friendship communication.

General Hypothesis 5: Communication integration in information-seeking communication is higher in more modern villages than in more traditional villages.

General Hypothesis 6: Communication integration in friendship communication is higher in more modern villages than in more traditional villages.

In a comparative study of two Indian villages, Rao (1966, pp. 57-59) found that in a more developed village, "contacts are spread over a wider area," whereas in a traditional village, "Communication is limited to specific groups." Yadav (1967) found that in a modern village, individual members were more integrated in both informationseeking and friendship communication than in a traditional village. Guimaraes (1968, 1970b) reported a similar finding for friendship communication in Brazilian communities.

Modernization is viewed essentially as a process of transformation of systems integrated with traditional norms to systems integrated with modern norms, and as this transformation takes place, individuals' interaction patterns change; individuals attempt to identify more objectively the informed people and more people get, directly or indirectly, interpersonally connected with them. Even in friendship relationships, individuals in modern systems, come out of the boundary of traditional peer groups limited within the same caste, or the same occupation, and interact with other members of the community. Thus in modern villages, more people are integrated directly or indirectly in both information-seeking and friendship communication in modern villages than in traditional villages.

Empirical Hypothesis 5: Individuals are more interconnected through interpersonal communication links in information-seeking communication in more modern villages than in more traditional villages.

Empirical Hypothesis 6: Individuals are more interconnected through interpersonal communication links in friendship communication in more modern villages than in more traditional villages.

CHAPTER III

RESEARCH METHODOLOGY

In the present chapter, the following are presented: a) source of data and sample selection, b) a short description of the villages under study, c) instrument construction and data collection, d) operationalization of the concepts used in the present study, and e) data-analyses and tests of hypotheses.

Data and the Sample

Data used in the present study come from the Indian part of a larger study, "Diffusion of Innovations in Rural Societies," conducted in Brazil, India, and Nigeria, by the Department of Communication at Michigan State University. The Indian part of the research project was conducted in three phases. In the first phase, an attempt was made to analyze the community setting in which rural people live, in order to determine to what extent the nature of the

community itself affects the adoption of innovations. The second phase of the study was designed to determine the factors which affect the innovative behavior of the individual farmer within a community setting. The third part of the Indian study involved field experiments to determine the effects of certain communication strategies, such as radio farm forums, adult literacy classes, etc. in inducing greater acceptance of innovations in a limited number of villages (Roy and others, 1968, pp. 1-2).

The present study is based on analysis of the data from the second phase of the Indian research project. Data were obtained through personal interviews with farmers in rural settings. The three states, Andhra Pradesh, Maharashtra, and West Bengal, were purposely selected to represent different modes of involvement of local self-government in development administration.¹ Andhra Pradesh represents

¹A state in India generally corresponds to a linguistic region. There were 17 states at the time the data were collected. For administrative purposes each state is divided into several districts. Administrative districts are divided into development blocks, consisting of roughly one hundred villages. The block development staff is administered by a Block Development Officer who heads a team of specialists in agriculture, co-operatives, animal husbandry and so on. The villages in a block are organized into circles of seven to ten villages, and at least one multi-purpose worker, called a Village Level Worker, is assigned to each circle.

locally-elected people at the block level; Maharashtra represents locally-elected people at the district level, and West Bengal represents areas in which the emphasis on local self-government has only recently been instituted and popular control over development administration was still forthcoming from the state level. Within each state, three districts with differing intensities of development inputs such as (1) an Intensive Agricultural Development Program district, (2) a district in which at least one of the blocks was under the tribal development program, and (3) a district with more or less usual development inputs, were purposively selected. Beyond the purposive selection of the three states and nine districts, a three-stage random sample was used to select nine blocks, 18 Village Level Worker circles, and 36 villages in each state. Thus a sample of 108 villages were obtained in Phase I of the project.²

²For further details, see Fliegel and others (1968, pp. 4-7).

¹Different strategies of development have been incorporated in different districts of a state. At least one district in each state has been singled out for more intensive development efforts under a national programme (often referred to as IADP or the Package Program, the latter in view of the emphasis on supplying agricultural inputs in combination, or in a "package"). Further, areas having substantial proportions of tribal people are often provided different and more intensive development inputs under the national tribal development program.

In the second phase of the study, eight villages were selected which were approximately typical of the range of variability on the success or failure of agricultural development programs in the 108 villages (Roy and others, 1968, p. 9). The sample of farmers in the eight selected villages were chosen purposively for the larger study and was thus restricted to farmers who operated a farm of at least 2.5 acres and who were not older than 50 years. Personal interviews were conducted with a total sample of 680 farmers in the eight villages, three in Andhra Pradesh, two in Maharashtra, and three in West Bengal.

Description of the Villages Studied¹

Manchili (N=78), Kanchumarru (N=33), and Polamuru (N=99) are the three villages selected in West Godavari district of Andhra Pradesh. All three villages are well served by a network of irrigation and transport facilities. The three villages are all situated three to six miles from each other in the same administrative block.

¹For further details, see Roy and others (1968) and Raju (1969).

The district in which the three villages are situated is a "Package District" meaning that an intensive agricultural development program (IADP) was taken up in the District (in 1961). The program was designed to ensure that needed resources--seeds, fertilizer, irrigation, implements, and technical assistance, would be available so that agricultural development could be intensified. The villages had populations of 1500, 2600, and 3400, respectively (Table 1).

State	District	Village	Popu- lation	Number of Respondents
Andhra Pradesh	West Godavari	Manchili	1500	78
Andhra Pradesh	West Godavari	Kanchumarru	2600	33
Andhra Pradesh	West Godavari	Polamuru	3400	99
Maharashtra	Yeotmal	Pophali	1149	100
Maharashtra	Yeotmal	Mulawa	3348	146
West Bengal	Birbhum	Amdole	2460	103
West Bengal	Birbhum	Harishpur	1709	59
West Bengal	Birbhum	Laxmidanga	1573	62

TABLE 1.--Location and size of sample villages for the Phase II Study in India.

Source: Roy and others (1969), and Raju (1969, p. 22).

Pophali (N=100) and Mulawa (N=146) are the two sample villages in Maharashtra state. Both the villages are located within 10 miles of a town and are connected by an all-weather


road and state-owned bus transportation system. The population of these villages in 1961 was 1149 an 3348, respectively.

The three villages in West Bengal are Amdole (N=103), Harishpur (N=59), and Laxmidanga (N=62). The population of these three villages was 2460, 1709, and 1573, respectively. Only Laxmidanga is situated on an all-weather road. Amdole and Harishpur are only four miles away from each other, and both are difficult to reach especially in rainy season. Most people in Amdole are Hindus, whereas all in Harishpur and Laxmidanga are Muslims.

Instrument Construction and Data Collection

The interview schedule constructed to measure the desired variables was first translated from English to Telugu, the language of Andhra Pradesh state, and was pretested in that state. After making appropriate changes the instrument was translated to the languages of the two other states (Marathi in Maharashtra, and Bengali in West Bengal), and a second pretesting was done in all three states. The second pretest responses were then tabulated

and screened to identify the meaning and use of expressions familiar to farmers in the three language areas. Several interviewer training sessions were held both before and after the pre-testing of the questionnaire.

Field work was conducted during March and April, 1967. Interviewing was done by teams of four interviewers, led by a supervisor, in each of the three states. Because of language differences, the team members, who spoke the appropriate regional language as their mother-tongue, worked only within their home state. All teams had prior field interviewing experience and had participated in Phase I interviews, training sessions, and Phase II pre-testing. All the interviewers had Masters' degrees in sociology, economics, social anthropology, or agricultural sciences, plus experience in rural studies. The present author was one of the interviewers in West Bengal state.

The interviewing teams established residence in a sample village, usually in a private residence. They made lists of eligible respondents by consulting voter registration lists, village official's cultivators' lists, and knowledgeable people in the village. They then divided the list among themselves and proceeded to interview eligible respondents. As far as possible, each interview was

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conducted in private and typically lasted about one hour and fifteen minutes. Since the interviewing teams had visited the villages during Phase I of the study, there generally was good rapport. Interview schedules were checked by the supervisor in the field, making it possible to return to the respondent if a question was omitted or misunderstood.

After completing the field work, the team members coded all the interview data for computer processing. Code categories were established on the basis of a sub-sample and then the data were systematically converted to numerical codes. All coding was checked for random, as well as systematic, errors (Roy and others, 1968, pp. 11-12).

Operationalization of Concepts

Based on the hypotheses listed in the previous chapter, the concepts of primary interest in the present study are:

- 1. Information-seeking communication
- 2. Friendship communication
- 3. Caste
- 4. Level of living

- 5. Education
- 6. Radio listening
- 7. Movie exposure
- 8. Newspaper exposure
- 9. Cosmopoliteness
- 10. Change agent contact
- 11. Innovativeness
- 12. Heterophily on dimensions emerging out of nine previously-listed variables
- 13. Village modernity
- 14. Communication integration.

1. <u>Information-Seeking</u> Communication

<u>Information-seeking</u> communication occurs when an individual interacts with another to obtain information for making certain decisions. Information-seeking communication was measured by sociometric questions:

If you needed advice on problems regarding the following matters from which one person in this village would you seek advice first?

- (a) Technical problems associated with farming
- (b) Obtaining credit
- (c) How to get maximum returns for your products.

Only one choice was allowed for each issue.

2. Friendship Communication

<u>Friendship</u> communication occurs when an individual interacts with another to have an informal and intimate affective association. Friendship communication was measured by a sociometric question:

Who are the people with whom you visit most frequently? Let us limit ourselves to three.

The best possible sociometric question to measure friendship communication would be: Who are your most intimate friends with whom you communicate most frequently? In Indian Village situation, such type of direct questions are avoided as the respondents may become suspicious about the intentions of the researcher. Although the sociometric question asked to the respondents refers to visit, in translating it to Indian languages, attention was paid to the conceptual equivalence for intimate friendship rather than simply visiting. In Bengali language, the question asked was "Who are the people with whom you stand and sit (<u>otha basha</u>) most?" Thus, in all three states the questions asked were to find out the three most intimate friends of the respondents with whom they interact most.



3. Caste

<u>Caste</u> is a category of an individual's ascribed position in a ritual hierarchy. Each respondent was asked to identify his caste. To obtain rank positions of respondents' castes in the hierarchy, a series of photographs showing some individuals (not from the sample villages) with cues to caste in terms of occupation, dress style, etc., were presented to a sample of key informants (one from each caste), who arranged the photographs in descending order according to who could accept cooked food and/or drinking water from whom. Caste rankings given by the majority of the key informants in a village were the final ranks of the castes for a village.¹

4. Level of Living

Level of living is the extent of an individual's material possessions or indicators of wealth. Operationally, data on level of living were obtained on such material possessions as clothes, shoes, jewelry, wrist watch or clock,

¹Two of the sample villages are populated with Muslims only; as such, no caste ranking could be done. Thus, in our hypotheses dealing with caste, we use information about 559 respondents, i.e., excluding the sample in the two villages.

flashlight, wooden/metal furniture, mosquito nets, bicycle/ motorcycle/scooter, brick or stone house, windows with shutters, cement or stone floor, tiled/tin/asbestos/cement roof, separate sitting room, well/tube well, separate bathroom/latrine, and two-storied house. Individuals received one point for owning each item.

5. Education

Education was measured by the number of years of formal schooling completed by the respondent.

6. Radio Listening

Radio listening was operationalized as to whether an individual listened to radio or not. The respondents were asked: Do you listen to radio?

7. Movie Exposure

Movie exposure is the frequency with which an individual attends movies. The following question was asked: Did you see any cinema films¹ during 1966? How many?

Reference is to commercial films, not those shown by the Block Development staff.



8. Newspaper Exposure

Newspaper exposure is the degree to which an individual reads newspapers or has them read to him. It was measured by asking:

Did you read (did anyone read to you) any newspaper in the past week? How many?

9. Cosmopoliteness

Cosmopoliteness is the degree to which an individual is oriented outside of his immediate social system. Cosmopoliteness was measured by the number of visits to nearest cities and towns. Respondents were asked:

How many times have you visited the following places last year?

- (a) Nearest town (less than 100,000 population)
- (b) Nearest city (population 100,000 or more)

10. Change Agent Contact

Change agent contact is the degree of an individual's interaction with professional representatives of change agencies. It was operationalized by noting the frequency with which a respondent talked with extension agents, saw block films, and attended agricultural demonstrations, as each of these activities entailed direct contact with professional change agents. An index was constructed by summing the responses to the following questions:

Last year (1966) how many times did you:

(a) Talk with the Block Development Officer?

(b) Talk with the Village Level Worker?

(c) See a block film on agriculture?

(d) See an agricultural demonstration?

11. Innovativeness

Innovativeness is the degree to which an individual is relatively earlier in adopting new ideas than the other members of his social system. This variable was measured as the number of 10 selected agricultural innovations ever used by an individual. Individuals received a score of one for each innovation ever used. The ten innovations are:

- 1. Ammonium sulphate fertilizer
- 2. Superphosphate fertilizer
- 3. Fertilizer mixtures
- 4. Insecticides for plant protection
- 5. Green manure
- 6. Cultivator or weeder
- 7. Improved breeding of cattle
- 8. Animal inoculation for disease prevention

- 9. Rat poison
- 10. High yielding varieties: Taichung Native 1 or IR 8 rice or any improved variety of corn, jowar, or bajra.

12. <u>Heterophily on</u> Different Dimensions

Heterophily is the degree to which pairs of interacting individuals are dissimilar on certain attributes.

In previous studies (Chou, 1966; Yadav, 1967) dealing with homophily-heterophily, the concepts have been operationalized as the zero-order product-moment correlation between the scores on certain attributes of interacting dyads. When product-moment correlation is used as a measure of homophily-heterophily, it indicates the degree of variation of an attribute of individuals who interact, associated with changes in the attribute of individuals with whom they interact dyadically, and vice versa. Our definition of heterophily emphasizes the degree of dissimilarities on attributes of interacting dyads. In the present study, heterophily is measured as the absolute difference in the selected dimensions (caste, level of living, education, radio listening, movie exposure, newspaper exposure, cosmo**politeness**, change agent contact, and innovativeness)

between individuals engaged in information-seeking and friendship communication. When the absolute difference in a dimension between interacting individuals is 0, there is least heterophily (perfect homophily); if the difference is not 0, then there is some degree of heterophily.

A comparison between absolute difference scores and zero-order product-moment correlation, as measures of homophily-heterophily can best by illustrated by using some hypothetical dyads engaged in dyadic interaction. For example, X_{1s} and X_{2s} are nine interacting dyads in village A, X_{3s} and X_{4s} in village B, and X_{5s} and X_{6s} in village C, and the number of newspapers read by them in a year are as presented in Table 2.

The zero-order product-moment correlation between attributes of the hypothetical dyads is 1.0 in all three villages. According to Chou's (1966) and Yadav's (1967) operationalization of homophily-heterophily, a correlation of 1.0 indicates perfect homophily. With zero-order product-moment correlation as a measure of homophilyheterophily, one would conclude that in all the three villages (A, B, and C), perfect homophily or least heterophily exists between interacting dyads. By examining the scores of the interacting pairs of dyads in the three villages, we

measures of heterophily among some hypothetical dyads in seven hypothetical TABLE 2.--Zero-order product-moment correlation and average absolute differences as villages.

Particulars	villa<	ge−À X_2	Villa X ₃	ge-B X 4	Villa X ₅	ge-C X ₆	Villa X ₇	ge-D X 8	vill ⁵ 8	age-E X ₁₀	villé X ₁₁	age-F X ₁₂	Villa X ₁₃	ge-G X ₁₄
	Г	5	-	4	г	Ч	0	4	0	8	0	п		13
	7	4	2	œ	2	5	4	Υ	4	7	4	13	2	11
	m	9	٣	12	m	m	9	8	9	9	9	80	m	8
	ተ	8	4	16	4	4	8	9	œ	13	8	4	4	7
	9	12	9	24	9	9	12	٢	12	0	12	7	9	9
	7	14	7	28	7	7	14	13	14	2	14	9	7	4
	8	16	8	32	80	80	16	7	16	11	16	٣	8	Υ
	11	22	11	44	11	11	22	11	22	m	22	7	11	2
	13	26	13	52	13	13	26	0	26	4	26	0	13	Ч
н Ц	1.0		1.0		1.0		0.0		0-	37	0	.89		0
Average Absolute Difference	6.75	10	20.2	ы	0.0	0	7.3	m	6	33	10.	6.	6.	44

and the second sec

find that although the scores on an attribute of interacting dyads are very highly related (r=1.0 in each village), there actually is not perfect homophily except in village C. By examining the average absolute differences between the interacting dyads, we find that there is perfect homophily only in village C, and there is a higher degree of heterophily in village B than in village A.

Thus, the average absolute difference score on an attribute of interacting dyads is more appropriate measure of heterophily than the zero-order product-moment correlation (for comparison of the two measures when r varies from 1.0 to -1.0, see Table 2).

The degree of heterophily on different dimensions emerging out of the nine selected variables among the interacting dyads was measured in the following way:

Step 1: Each respondent's scores on the selected variables were standardized.¹

¹Before measuring absolute differences between the two individuals in each dyad, individuals' scores on each of the selected variables were standardized so that variations in absolute differences among dyads were not influenced by village differences with respect to the selected variables. The formula used to standardize each respondent's score on each variable is:

Step 2: Absolute difference between the two individuals in each dyad on each of the selected variables was calculated.

Step 3: These absolute differences or heterophily scores¹ on nine variables were then factor-analyzed to identify different heterophily dimensions present among dyads engaged in information-seeking and friendship communication. The principal axis solution using varimax rotation with a Kiel-Wrigley criterion for terminating factor rotations, yielded two factor-rotated solutions. The percent of total variance explained by each of the rotated solutions

$$z = \frac{x_1 - \bar{x}}{s}$$

shere, X₁ = each respondent's score on a selected
variable

- x = village mean score on the selected variable for the village the respondent was from
- s = standard deviation of the distribution of scores on the selected variable among the respondents in the village the respondent was from.

¹Actually, the absolute differences are heterophily scores. When heterophily score or absolute difference is 0, there exists least heterophily; that is, there exists perfect homophily. Thus, in the later sections of the present chapter, and in the later chapters, absolute difference scores will be referred to as "heterophily scores." is presented in Table 3. Among the two rotated factor solutions, the second one containing three factors was selected. In selecting the three-factor solution, the major considerations were:

- The conceptual meaningfulness of the factors as evidenced by the variables loaded on each factor;
- 2) The proportion of variance explained by the factors. Of the total variance present among the nine variables, 54.5 percent is explained by the three factors jointly (Table 3).

The dimensions emerging from the three factors are:

- 1) Status heterophily,
- 2) Change contact heterophily, and
- 3) Movie exposure heterophily.

In deciding on the variables which constitute the factors the following considerations were set:

1) The square of the factor loading of a variable should approach the communality (h^2) of that variable.

TABLE	3Percent	of	total	variance	e expla	ained	by	the	two
	rotated	so.	lutions	s meeting	r a Kie	el-Wr	igle	ey cr	i-
	terion f	Eor	termir	nating th	e fact	tor ro	otat	ion.	

Rotated Solution	Percent of T Expl	Fotal Variance lained
First Rotation		
Factor I Factor II	Total	27.7% <u>16.8%</u> 44.5%
Second Rotation		
Factor I Factor II Factor III	Total	23.8% 19.5% <u>11.2%</u> 54.5%

2) A variable is included in the factor on which the loading is higher than .50, if the loadings are less than .50 on other factors.

Accordingly, the variables were included in a factor if they met at least one of the above two criteria.¹

¹The only exception was radio listening, which is discussed later in the section dealing with change contact heterophily.

Factor I: Status Heterophily

The dimension tapped by Factor I is status heterophily among interacting dyads. It contains such items as caste, education, innovativeness, and level of living. Heterophily scores on all four variables are positively loaded on the status heterophily dimension (Table 4).

TABLE 4.--Heterophily scores on nine selected variables and factor loadings in the three-factor solution¹

	Fa	ctor Loadi	ngs	
Variables	Factor I	Factor II	Factor III	h ²
Caste	.5163	2709	.1876	.3751
Education	.6227	0733	1626	.4196
Cosmopoliteness	.1820	6445	1668	.4764
Newspaper exposure	.4213	6367	0632	.5869
Radio listening	.4207	.6847	0376	.6472
Movie exposure	0543	1298	9506	.9235
Innovativeness	.6202	1911	.0409	.4228
Level of living	.7518	0204	.0769	.5715
Change agent contact	.3895	5748	0200	.4825

¹Highest loadings of the variables on a factor are underlined. For zero-order correlation between the nine variables, see Appendix.

Factor II: Change-Contact Heterophily

The second dimension of heterophily is change contact. It consists of cosmopoliteness, newspaper exposure, and change agent contact. All three items are loaded to the factor in the same direction, and represent exposure to different channels through which new ideas reach villages. Although radio listening loaded on the factor, it is in the opposite direction to that of the other items. Reasons for this seeming anomaly might be: 1) the level of measurement for radio listening was nominal, and 2) about 77 percent of all the respondents responded that they listened to radio, while 23 percent did not. Thus, radio listening was not included in the change contact heterophily dimension.

Factor III: Movie Heterophily

The third dimension, Factor III is composed mostly of movie exposure. Heterophily in movie viewing is the only item which loads very high (-.95) on Factor III. Movies are the major media of entertainment for Indian

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villagers.¹ Thus, the heterophily dimension tapped by this factor is mostly entertainment.²

Step 4: Status heterophily and change-contact heterophily were calculated for each dyad by dividing the sum of the heterophily scores on all variables constituting each dimension of heterophily, by the number of variables.³ Thus these scores are averages-across-the-variables included in each factor.

13. Level of Modernity

Level of modernity of a village is its relative condition or state in the modernization process as compared to others at a particular point in time. In an effort to rank the villages on modernity, the following thirty variables

³This step was necessary, particularly for status **heterophily**, as no caste ranking was done in two of the **sample villages** where all the residents are Muslims.

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¹Radio is also an everyday medium of entertainment, but movies have a greater amusement appeal to Indian villagers.

²Most movie theaters are located in towns and cities. Thus, visits to movie theaters bring outside contacts. Screening of a government documentary (commonly known as "news reels") is compulsory before the feature film is screened. This provides an opportunity for the Indian villagers to be exposed to messages containing new ideas also.

(considered to be aspects of modernity) were purposively selected and were treated to Guttman scale analyses.

1. Family type (nuclear or joint) 2. Education of respondent 3. Education of children 4. Farm specialization 5. Tenure status 6. Number of offices held 7. Social participation 8. Farm commercialization 9. Farm size 10. Level of living 11. Farm labor efficiency 12. Trial of agricultural innovations 13. Cosmopoliteness 14. Radio listening 15. Movie exposure 16. Literacy 17. Newspaper exposure 18. Change agency contact 19. Credit orientation 20. Planning orientation 21. Non-authoritarianism 22. Educational aspirations for children 23. Self-reliance 24. Deferred gratification 25. Economic ambition 26. Achievement motive 27. Political knowledge 28. Secular orientation 29. Empathy

30. Interpersonal trust

Of these 30 variables treated to a Guttman scale analysis,¹ 15 variables were retained with a coefficient

¹A computer program for Guttman scale analysis, developed by Dr. David J. Stanfield of the Department of Communication at Michigan State University, was used in the present study. The ranking of the villages on modernity was used in an earlier study by Sen (1969). The present author assisted Dr. Sen in analyzing data for the earlier study.

of reproducability¹ of 0.99. The following variables remained as scale items in the following order:

- Number of offices held; newspaper exposure; economic ambition, interpersonal trust
- 2. Political knowledge; farm commercialization
- 3. Literacy; level of living; farm labor efficiency
- 4. Social participation
- 5. Radio listening; non-authoritarianism
- 6. Education; cosmopoliteness
- 7. Family type.

There were in all seven scale positions and except in two cases more than one variable was placed in the same position. For the scale positions, where more than one variable was placed, one variable was chosen randomly for each position. After random selection, the variables in the scale of modernity were: Number of offices held, political knowledge, farm labor efficiency, social participation, non-authoritarianism, education, and family type. The villages were then ranked according to the mean village

¹Coefficient of reproducibility = $1 - \frac{E}{Nxn}$ where, E = number of errors, N = number of villages, n = number of scale items (Schuessler, 1971).

scores on the variables in the scale. For example, Kanchumarru village got the highest rank because it showed highest scores on most of the scale items, whereas Laxmidanga village was ranked lowest as it showed lowest scores on most of the scale items (for ranks of all the eight villages, see Table 5).

TABLE 5.--Rank-order of eight villages according to level of modernity.

Rank (From Most to Least Modern)	Village	State
1	Kanchumarru	Andhra Pradesh
2	Polamuru	Andhra Pradesh
3	Mulawa	Maharashtra
4	Pophali	Maharashtra
5	Manchili	Andhra Pradesh
6	Amdole	West Bengal
7	Harishpur	West Bengal
8	Laxmidanga	West Bengal

14. Communication Integration

Communication integration is the extent to which the units of a social system are interconnected through interpersonal communication links. For measuring communication integration, a computer program called "Network Routine" developed by Guimaraes (1970a) was used. The first step in this analysis is to form a binary (0-1)matrix. A "0" in the matrix indicates no direct communication link between two individuals, and a "l" indicates the presence of direct communication link. Then matrix multiplication is done by raising the original binary (0-1) matrix to n-powers in order to determine n-links and n-step connections (Guimaraes, 1970a, p. 33).¹ The computer program provided the following information: 1) Sum of all the communication links² a respondent had; 2) a relative communication integration index for each respondent, which is

¹For details about the Network Routine, see Guimaraes (1970a).

²Communication links represent the number of steps (individuals) through which an individual is communicatively connected with another both directly and indirectly. Suppose A directly communicates with B, and B directly communicates with C; then A has two communication links with C.

the sum of the communication links divided by N-1 (where N = total number of respondents in a village); 3) a village communication integration index, which is the sum of each respondent's (in a village) communication integration indices divided by N.

Data Analyses and Tests of Hypotheses

Before measuring homophily-heterophily in information-seeking and friendship communication, the dyads engaged in information-seeking and in friendship communication were identified. We found 976 and 552 dyads engaged in friendship communication and information-seeking respectively. Of the 976 dyads engaged in friendship communication, 6 percent (n=62) make mutual choice (Table 6). In the case of information-seeking communication, only 1 percent (n=7) made a mutual choice. When individual A responds that he communicates with A and B responds that he communicates with A (in the same communication net), we have two identical dyads (A \longrightarrow B and B \longrightarrow A. As our major interest is to study the degree of similarities and differences between A and B on selected attributes, in the case TABLE 6.--Number of total, mutual, and common dyads in information-seeking and friendship communication.

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Village		тоtаl Friendship Вуадз	Импьет оf Миtиаl Сћојсе Dyads in Friendship Соттилісаtion	-notamrotal lator Sbeyd prixes	Νυπber οί Μυτυαl Choice Dyads in Choise Dyads in Cormation Commaication Νυπber οί Dyads	Εησασεά ίη Βοቲh Γτίεηdship and Ιηformation-Seeking Communication
Manchili.		93	Ŀ	66	1	19
Kanchumarru		59	° M	33	0	14
Polamuru		122	8	62	IJ	23
Pophali		126	7	66	0	23
Mulawa		236	16	132	2	39
Amdole		155	13	104	2	31
Harishpur		06	г	40	0	20
Laxmidanga		95	o 1	49	1	19
	Total	976	62	552	7	188

of mutual choice dyads $(A \longrightarrow B, B \longrightarrow A)$, we considered them as one dyad in the analyses, rather than two.¹ Thus, in our final analyses for the hypotheses dealing with homophily-heterophily, we had 914 dyads engaged in friendship communication and 545 paired dyads engaged in information-seeking communication.

General Hypothesis I

Of the 914 dyads engaged in friendship communication, and the 545 dyads engaged in information-seeking communication, 188 dyads were common to both. Thus, we had 726 dyads (79 percent of friendship dyads) engaged exclusively in friendship communication, 357 dyads (65 percent of information-seeking dyads) engaged exclusively in information-seeking communication, and 188 dyads (21 percent of the friendship dyads; 35 percent of the information-seeking dyads) engaged in both. As General Hypothesis 1 is specifically a comparison of the degree of heterophily among dyads engaged in information-seeking with the dyads engaged in friendship communication, we compared the dyads engaged only in information-seeking,

¹If in a village all dyads are mutual choice dyads and say, their number is 100, then in actuality there are 50 specific dyads.

with dyads engaged only in friendship communication, and discarded those engaged in both types of communication.

For comparing differences in heterophily in information-seeking and in friendship communication, average heterophily scores on (1) status heterophily, (2) change contact heterophily, and (3) movie exposure heterophily, were calculated for 357 dyads engaged in information-seeking communication, and for 726 dyads engaged in friendship communication. Thus, the following three Empirical Hypotheses were tested, rather than the one stated in Chapter II:

Empirical Hypothesis 1-A: There is a greater degree of status heterophily among dyads engaged in information-seeking than in friendship communication.

Empirical Hypothesis 1-B: There is a greater degree of change contact heterophily among dyads engaged in information-seeking than in friendship communication.

Empirical Hypothesis 1-C: There is a greater degree of movie exposure heterophily among dyads engaged in information-seeking than in friendship communication. To test Empirical Hypotheses 1-A, 1-B, and 1-C, the "t" test for unequal N's was used¹ (Table 7).

General Hypothesis 2 and General Hypothesis 3

General Hypothesis 2 and General Hypothesis 3 deal with comparisons of the degree of heterophily among information-seeking dyads and friendship dyads across eight villages with different levels of modernity. As mentioned earlier, three heterophily dimensions emerged from the selected variables. Thus, the Empirical Hypotheses tested for General Hypothesis 2 and General Hypothesis 3 are:

and
$$s = \frac{\left(x-M_{1}\right)^{2} + \left(x-M_{2}\right)^{2}}{n_{1} + n_{2} - 2}$$
 where, M_{1} = average heterophily
among information-
seeking dyads,
 M_{2} = average heterophily
among friendship
dyads,
 n_{1} = number of information-
seeking dyads,
 n_{2} = number of friendship
dyads,
 n_{3} = number of friendship
dyads,
 n_{4} = number of friendship
dyads,

Hypotheses	Units of Analysis and N's	Measures of Variables	Statistical Method of Testing Hypotheses
General Hypothesis 1: There is a greater degree of heterophily with respect to certain relevant attri- butes, among dyads engaged in information-seeking com- munication than in friend- ship communication.	Dyads $N_1 = 357$ $N_2 = 726$	Average heterophily scores on three di- mensions; 1) status, 2) change contact, and 3) movie expos- ure; for two types of communication.	t-test for difference between two means of two independent samples.
General Hypothesis 2: There is a greater degree of heterophily among dyads engaged in information- seeking communication in more modern villages than in more traditional vil- lages.	Villages N = 8	Village heterophily scores on (1) status, (2) change contact, and (3) movie expos- ure; and village rank on modernity.	Spearman rank-order correlation coeffi cient for difference from zero.

TABLE 7.--Data-analyses and hypotheses-testing.

General Hypothesis 3: There is a greater degree of heterophily among dyads engaged in friendship com- nunication in more modern rillages than in more tra- litional villages.	Villages N = 8	Village heterophily scores on (1) status, (2) change contact, and (3) movie ex- posure; and village rank on modernity.	Spearman rank-order correlation coeffi- cient for difference from zero.
General Hypothesis 4: Communication integration Is higher in information- seeking communication than In friendship communication	Indi- duals N=680	Average communication integration scores; for two types of com- munication.	t-test for difference between two means of same sample.
General Hypothesis 5: Communication integration in information-seeking communication is higher in more modern villages than in more traditional villages.	Villages N = 8	Village communication integration scores; and village rank on modernity.	Spearman rank-order correlation coeffi- cient for difference from zero.
General Hypothesis 6: Communication integration In friendship communication Is higher in more modern rillages than in more tra- litional villages.	Villages N = 8	Village communication integration scores; and village rank on modernity.	Speaman rank-order correlation coeffi- cient for difference from zero.

Empirical Hypothesis 2-A: There is a greater degree of status heterophily among dyads engaged in information-seeking communication in more modern villages than in more traditional villages.

Empirical Hypothesis 2-B: There is a greater degree of change contact heterophily among dyads engaged in information-seeking communication in more modern villages than in more traditional villages.

Empirical Hypothesis 2-C: There is a greater degree of movie exposure heterophily among dyads engaged in information-seeking communication in more modern villages than in more traditional villages.

Empirical Hypothesis 3-A: There is a greater degree of status heterophily among dyads engaged in friendship communication in more modern villages than in more traditional villages.

Empirical Hypothesis 3-B: There is a greater degree of change contact heterophily among dyads engaged in friendship communication in more modern villages than in more traditional villages.

Empirical Hypothesis 3-C: There is a greater degree of movie exposure heterophily among dyads engaged in friendship communication in more modern villages than in more traditional villages.

Average heterophily for each village, in each type of communication was calculated for status heterophily, change contact heterophily and movie exposure heterophily. The eight villages were ranked according to their heterophily scores on each of the three heterophily dimensions (from highest heterophily to lowest heterophily). For testing Empirical Hypotheses 2-A, 2-B, and 2-C, Spearman rank-order correlation coefficient $(r_g)^1$ between villages' ranks on heterophily (among dyads engaged in information-seeking communication) and their ranks on modernity was computed. To test Empirical Hypotheses 3-A, 3-B, and 3-C, Spearman rank-order correlation coefficient between the villages' ranks on heterophily (among dyads engaged in friendship communication) and their ranks on modernity was computed to test statistically the significance of difference of the coefficient from zero.

General Hypotheses 4, 5, and 6

Three General Hypotheses (4, 5, and 6) deal with communication integration as the dependent variable. The unit of analysis, for Empirical Hypothesis 4 is individuals

$$r_{s} = 1 - \frac{6\Sigma di^{2}}{N^{3}-N}$$
 where, di = difference between
the rank of a vil-
lage on modernity
and on village
heterophily scores
N = number of villages
(N=680), whereas the village is the unit of analysis for Empirical Hypotheses 5 and 6.

Empirical Hypothesis 4 deals with the comparison of communication integration between information-seeking and friendship communication. Mean communication integration socres for 680 respondents were computed for both information-seeking and friendship communication. To test Empirical Hypothesis 4, a t-test¹ for difference between two means of a dependent sample was used.

To test the Empirical Hypotheses 5 and 6, the eight villages were ranked (from highest to lowest) according to (1) their communication integration scores (in informationseeking and in friendship communication respectively, and (2) village modernity (from most modern to least modern), and the Spearman rank-order correlation coefficient r_s was computed to statistically test the significance of difference of the coefficient from zero.

$$t = \frac{\overline{x}d}{sd/\sqrt{N-1}}$$
 where, \overline{x}_d = mean difference between
information-seeking and
friendship communication
integration
$$S_d$$
 = standard deviation of dif-
ferences between informa-
tion-seeking and friend-
ship communication inte-
gration

N = total number of respondents

CHAPTER IV

FINDINGS

In the present chapter, findings regarding the six general hypotheses are presented.

Heterophily in Information-Seeking and Friendship Communication

General Hypothesis 1: There is a greater degree of heterophily with respect to certain relevant attributes, among dyads engaged in informationseeking communication than in friendship communication.

To compare the degree of heterophily among dyads engaged in information-seeking communication with the degree of heterophily among dyads engaged in friendship communication, average heterophily scores for each of the three heterophily dimensions were computed for all dyads involved (1) only in information-seeking, and (2) only in friendship communication (although, no hypotheses were stated for dyads engaged <u>both</u> in information-seeking and

in friendship communication, average heterophily scores among such dyads were also computed). In Table 8, the average heterophily scores, the standard deviations of heterophily scores, and the number of dyads involved,

TABLE 8.--Average heterophily scores and standard deviations of heterophily scores, and the number of dyads involved in different types of communication situations.

Type of		Heter	ophily Dim	ensions
Communication Situation	Statistics	Status	Change Contact	Movie Exposure
Information- Seeking Only	Mean	1.12	1.21	0.67
	Standard			
	Deviation	0.67	0.83	1.06
	N	357	357	357
Friendship Communication Only	Mean	0.81	0.92	0.54
Only	Standard			
	Deviation	0.54	0.79	0.93
	N	726	726	726
Both Information Seeking and Friendship	Mean	0.88	1.06	0.61
Communication				
	Standard Deviation	0.56	0.80	0.96
	N	188	188	188

are presented (see also Figure 3). The computed t-values for differences between the mean heterophily scores are presented in Table 9. From Table 8 and Figure 3, it is evident that the differences in the degree of heterophily among information-seeking dyads and among friendship dyads are in the hypothesized direction for all three heterophily dimensions. The "t" values comparing the mean heterophily scores among information-seeking dyads versus among friendship dyads, with respect to status (t = 8.33), change contact (t = 5.66), and movie exposure (t = 2.02), are all significant at the .05 level. In each of the three heterophily dimensions, the mean heterophily scores were greater for dyads engaged in information-seeking than for dyads engaged in friendship communication. Thus, the general hypothesis that there is a greater degree of heterophily with respect to certain relevant attributes among dyads engaged in information-seeking communication than in friendship communication, is supported.¹

¹The decision rule throughout the present dissertation is that majority of the empirical hypotheses have to be supported for support of the general hypotheses.



Fig. 3.--Mean heterophily on status, change contact, and movie exposure for dyads engaged in different communication situations.

TABLE 9.--Computed "t" values for differences between mean heterophily scores on each heterophily dimension for dyads involved in different communication situations.

General	Comparison	t-Value:	t-Values for Differences in Mean Heterophily Scores					
Tested	of Dyads	Status	Change Contact	Movie Exposure				
General Hypothesis l	Information- seeking vs. friendship communication	8.33*	5.66*	2.02*				
Hypothesis was not formulated	Information- seeking vs. common dyads	4.25*	2.09*	0.63				
Hypothesis was not formulated	Common dyads vs. friendship dyads	1.58	2.15*	0.89				

*Significant at the .05 level, one-tailed test.

The dyads engaged in both information-seeking and friendship communication were not included in the analyses for testing General Hypothesis 1. Although no hypotheses were stated earlier comparing the degree of heterophily among the common dyads and those engaged only in informationseeking or only in friendship communication, our expectations were that (1) the degree of heterophily among dyads engaged only in information-seeking communication would be higher than among common dyads, and (2) the degree of heterophily among common dyads would be higher than among dyads engaged only in friendship communication. The reasons for these expectations are similar to those discussed in Chapter II. It was also realized that by comparing the degree of heterophily across information-seeking dyads, common dyads, and friendship dyads, one might be able to identify the specific dimensions or attributes on which (1) less heterophily (or more homophily) is necessary for friendship communication to occur; and (2) high heterophily is necessary for information-seeking communication to occur.

Table 8 and Figure 3 show that the mean heterophily in status, change contact and movie exposure among dyads engaged only in information-seeking are greater than among the common dyads. The computed "t" values for differences in mean status heterophily, change contact heterophily and movie exposure heterophily are 4.25, 2.09, and 0.63, respectively (Table 9). Except for the differences in movie exposure heterophily, the computed "t" values for differences in status heterophily and change contact heterophily between information-seeking dyads and common dyads are significant at the .05 level (Table 9) suggesting that there is a greater degree of heterophily with respect to status and change

90

contact among information-seeking dyads than among dyads engaged both in information-seeking and friendship communication.

Average status heterophily, change contact heterophily, and movie exposure heterophily are greater among the common dyads than among the friendship dyads (Table 8). The only heterophily dimension on which the calculated "t" value is found to be significant at the .05 level, is change contact (t = 2.15). Thus, there is a greater degree of heterophily with respect to change contact only, among dyads engaged in both information-seeking and friendship communication than among dyads engaged only in friendship communication.

With regard to the degree of heterophily among (1) common dyads, (2) dyads engaged only in information-seeking, and (3) dyads engaged only in friendship communication, the findings suggest that low heterophily (or high homophily) in status is relevant and perhaps necessary for friendship communication to occur, and high heterophily (or low homophily) in change contact is relevant and might be necessary for information-seeking communication to occur among rural people in India.

We found support for General Hypothesis 1, with respect to the three heterophily dimensions emerging out of the factor analyses of the heterophily scores on the selected variables. To explore further the degree of heterophily among dyads with regard to the variables which constitute the heterophily dimensions, we also analyzed the data to find out the degree of heterophily with respect to each of the eight variables among dyads engaged only in informationseeking, only in friendship communication, and among dyads engaged in both. Table 10 presents the mean heterophily scores, the standard deviations of the heterophily scores on eight variables, and the number of dyads engaged in the different communication situations. Table 10 shows that the mean heterophily scores for the eight variables among information-seeking dyads are greater than (1) among common dyads, and (2) among friendship dyads. The mean heterophily scores for the eight variables are again greater among common dyads than among friendship dyads. The calculated "t" values comparing the mean heterophily scores of informationseeking (only) dyads and friendship (only) dyads, are significant at the .05 level (Table 11). This finding provides additional support for the General Hypothesis 1.

vari	ables among	dyads	in dif	ferent	communic	ation si	tuations.		
					Hetero	phily			
			Statu	Ŋ			Change C	ontact	
Situation	Statistics	Caste	Educa- tion	Level of Living	Innova- tiveness	Cosmopo- liteness	Newspaper Exposure	Change Agent Contact	Movie Exposure
Information-	Mean	0.81	1.25	1.23	1.16	1.04	1.27	1.34	0.66
seeking only	Standard deviation	0.99	1.19	0.85	0.85	0.86	1.28	1.12	1.06
	N	318	357	357	357	357	357	357	357
Friendship	Mean	0.41	1.02	0.86	0.80	0.88	0.95	0.93	0.54
communication onlv	Standard deviation	0.74	1.00	0.72	0.68	16.0	1.17	1.01	0.93
7	N	687	726	726	726	726	726	726	726
Both information-	Mean	0.58	1.13	0.87	0.84	0.96	1.09	1.13	0.61
seeking and friendship	Standard deviation	0.91	1.06	0.77	0.73	06.0	1.22	1.05	0.96
communication	N	149	188	188	188	188	188	188	188

TABLE 10.--Calculated "t" values for differences in mean heterophily on the selected

TABLE 11Calculated "t" variables among	values g dyads	for dif in diff	ference erent c	es in mea communica	n hetero) tion situ	phily on Lations.	the sele	cted
	E	t" Valu	les for	Differen	ces in M	ean Heter	ophily	
Comparison of	Caste	Educa- tion	Level of Living	Innova- tiveness	Cosmopo- liteness	Newspaper Exposure	Change Agent Contact	Movie Exposure
Information-seeking vs. friendship dyads	7.31*	3°37*	6.65*	6.89 *	2.76*	4.62*	6.30*	2.02*
Information-seeking vs. common dyads	2.42*	1.16	4.76*	4.35*	0.92	1.59	2.11*	0.63
Common dyads vs. friendship dyads	2.45*	1.31	0.21	0.69	1.16	1.68*	2.52*	0.89

*Significant at the .05 level; one tailed test.

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The calculated "t" values for differences in mean heterophily between information-seeking (only) and common dyads are significant at the .05 level with respect to caste (t = 2.42), level of living (t = 4.76), innovativeness (t = 4.35), and change agent contact (t = 2.11). The "t" values comparing heterophily among common dyads and friendship (only) dyads are significant at the .05 level only for caste (t = 2.45), newspaper exposure (t = 1.68), and change agent contact (t = 2.52). Thus, (1) there is a greater degree of heterophily with respect to caste, level of living, innovativeness, and change agent contact among dyads engaged only in information-seeking than among d yads engaged in voth information-seeking and friendship communication; and (2) there is a greater degree of heterophily with respect to caste, newspaper exposure, and change agent contact among dyads engaged in both information-seeking and friendship communication, than among dyads engaged only in friendship communication.

Heterophily in Information-Seeking and Friendship Communication and Village Modernity

General Hypothesis 2: There is a greater degree of heterophily among dyads engaged in informationseeking communication in more modern villages than in more traditional villages.

Spearman rank-order correlation coefficients between the ranks of the eight villages on modernity (from most to least modern) and on the degree of heterophily in information-seeking communication (from highest to lowest heterophily) were computed for each of the three heterophily dimensions (and for each variable also; Table 12). From Table 12, it is evident that the Spearman rank-order correlation coefficients between the degree of heterophily in all the three dimensions of heterophily in informationseeking communication and villages' modernity are not significantly different from zero at the .05 level. Thus, General Hypothesis 2 regarding heterophily in informationseeking communication and village modernity is not supported.

The heterophily dimensions on which the relationships between the degree of heterophily in informationseeking communication and village modernity are in the predicted direction, are change contact and movie exposure.

TABLE 12.--Spearman rank-order correlation between the degree of heterophily in information-seeking communication, and in friendship communication, and village modernity.

Weterschilte in	Spearman Rank-Orde Communicat:	er Correlation for Two ion Situations
	Information-seeking	Friendship Communication
Status	19	55
Change contact	.50	.69*
Movie exposure	.29	.43
Caste	37	60
Education	36	69*
Level of living	19	05
Innovativeness	.07	21
Cosmopoliteness	•55	.64*
Newspaper exposure	.48	.69*
Change agent contact	.57	.69*
Movie exposure	.29	.43

*Significantly different from zero at the .05 level, one-tailed test.

No significant relationships between heterophily in the eight variables (separately) in information-seeking communication and village modernity are observed.

General Hypothesis 3: There is a greater degree of heterophily among dyads engaged in friendship communication in more modern villages than in more traditional villages. Among the three heterophily dimensions, only change contact heterophily in friendship communication is significantly related to village modernity ($r_s = .69$, which is significantly different from zero at the .05 level) in the predicted direction. Thus, General Hypothesis 3 is not supported.

Although the relationship between movie exposure heterophily in friendship communication and village modernity is in the predicted direction ($r_s = .43$), the same between status heterophily (in friendship communication) and village modernity is in the opposite direction to the one predicted ($r_s = .55$).

Analyzing the relationships between the degree of heterophily in each of the selected variables and village modernity, it is observed that heterophily in three variables (cosmopoliteness, newspaper exposure, and change agent contact) which constitute the change contact heterophily dimension, are significantly related to village modernity $(r_s = .64, 69, .69, respectively; all significantly differ$ ent from zero at the .05 level). Heterophily in education(in friendship communication) is found to be significantlyrelated to village modernity, but in the opposite to the $direction postulated (<math>r_s = 0.69$, significantly different from zero at the .05 level). The findings about the relationship between the degree of heterophily in friendship communication and village modernity do not provide enough evidences of support for General Hypothesis 3.

<u>Communication Integration in Information</u>-<u>Seeking and Friendship Communication</u>

General Hypothesis 4: Communication integration is higher in information-seeking communication than in friendship communication.

The average communication integration scores of the 680 respondents in information-seeking and in friendship communication are .08 and .46 respectively, with (1) a mean difference in communication integration of .38, and (2) a standard deviation of difference in integration of .38. Although the calculated "t" for differences between communication integration in information-seeking and in friendship communication is significant (t = 26.0) at the .05 level, the mean communication integration score in friendship communication is found to be greater than the mean communication integration score in information-seeking communication. Thus, the calculated t is significant but the difference in the two means is not in the expected direction. General Hypothesis 4 is not supported.

Communication Integration and Village Modernity

General Hypothesis 5: Communication integration in information-seeking communication is higher in more modern villages than in more traditional villages.

Spearman rank-order correlation coefficient between ranks of villages according to their average communication integration scores in information-seeking communication, and ranks of villages in modernity (Table 13), was computed. The computed r_s is .31, which is not significantly different from zero at the .05 level. Thus, General Hypothesis 5 is not supported.

TABLE 13.--Communication integration scores in informationseeking and friendship communication in eight Indian villages.

Villages in Order of Modernity		Communication Integration Scores and Ranks					
		Information-S	eeking	Friendship Comm	Friendship Communication		
(H	figh to Low)	Integration Scores	Rank	Integration Scores	Rank		
1	Kanchumarru	.1193	2	1.0521*	1		
2	Polamuru	.0558	6	.4940	3		
3	Mulawa	.0915	3	.5113	2		
4	Pophali	.0239	8	.4533	4		
5	Manchili	.1637	1	.3948	5		
6	Amdole	.0913	4	.3338	8		
7	Harishpur	.0625	5	.3667	6		
8	Laxmidanga	.0468	7	.3641	7		

*Communication integration index can be more than 1.00. For example, in a communication net A, B, C, D, E are engaged in communication as follows:

C ← A-	→B	Tota	1 commu	inic	al	tic	on	links	for	Α	area	;
			А	to	В	=	1					
Ļ			Α	to	С	=	1					
D,			А	to	D	=	1					
	Έ		А	to	Ε	=	2	_				
						_	5	_				
Thus,	individual	A's	communi	icat	tic	on	ir	ntegrat	tion	ir	ndex	=

Thus, individual A's communication integration index = 5/4 = 1.25.

General Hypothesis 6: Communication integration in friendship communication is higher in more modern villages than in more traditional villages.

The Spearman rank-order correlation coefficient between ranks of villages according to their average communication integration scores in friendship communication, and their ranks on modernity is .90, which is significantly different from zero at the .05 level. Thus, the General Hypothesis 6 is supported.

CHAPTER V

SUMMARY AND CONCLUSIONS

The present chapter includes a summary of the present study, conclusions, and suggestions for future research.

Summary

The present dissertation is the result of an attempt to answer the following four questions raised about rural communication systems (villages):

1) Do heterophily relationships between sources and receivers differ from one communication situation to another?

2) How are the heterophily relationships between sources and receivers related to the modernity levels of the rural villages?

3) Does the extent of integration through interpersonal contacts differ from one communication situation to another?

4) How is the degree of integration through interpersonal contacts related to modernity levels of rural villages?

Thus, the major objectives of the present study were: 1) to compare the degree of heterophily in informationseeking and friendship communication; 2) to compare the degree of communication integration in information-seeking and in friendship communication; and 3) to find out the relationships between modernity levels of rural Indian villages and (a) degree of heterophily, and (b) communication integration.

The major concepts dealt with in the present study are:

1) <u>Heterophily</u> is the degree to which pairs of interacting individuals are dissimilar in attributes.

2) <u>Information-seeking</u> communication occurs when an individual interacts with another to obtain information, advice, or evaluation for making certain decisions.

3) <u>Friendship communication</u> occurs when an individual interacts with another to have an informal and intimate affective association.

4) <u>Communication integration</u> is the extent to which the units of a social system are interconnected through interpersonal communication links. (i) ti Oľ d to Pa S D č 5) <u>Modernization</u> is the process through which systems (individuals, villages, nations, etc.) change from a traditional way of life, to a more complex, technologicallyoriented way of life.

6) Level of modernity of a system is its relative condition or state in the modernization process, as compared to others at a particular point in time.

Data used in the present study come from the Indian part of a larger study, "Diffusion of Innovation in Rural Societies," conducted in Brazil, India, and Nigeria, by the Department of Communication at Michigan State University. The present study is based on the analysis of the data from the second phase of the Indian research project, in which the purpose was to determine the factors affecting the innovative behavior of Indian farmers in rural settings. Data were obtained from 680 farmers in eight villages located in three states (Andhra Pradesh, Maharashtra, and West Bengal) through personal interviews.

Six general hypotheses were postulated, three dealing with heterophily among dyads engaged in informationseeking communication and in friendship communication, and the other three dealing with communication integration. Among the six general hypotheses postulated, only two were

supported by the data (Table 14). The question then arises, why were only two of the six hypotheses supported, and the others not supported?

Methodological Factors

1. Sample Selection

In the larger study from which the data for the present study came, the respondents were purposively selected. For a study of homophily-heterophily and communication integration, the ideal sample would have been all the household heads in the villages. When an individual respondent reported that he sought information from, or had friendship communication with, someone who was not in the sample, information about such dyads were not available. In rural India, where age and experience have been traditional, the major criteria for deciding from whom to seek information, the age restriction (not older than 50 years of age) in selecting the sample resulted sociometricallynamed receivers who were not in our sample, specifically in the case of information-seeking communication.

Village communication integration, in the present study, is essentially the average integration of the

[4Sum	nary of results of the hypotheses tested in	the present	t study.	
	Empirical Rypotheses	Type of Statistical Test	Test Result	General Hypotheses Supported/ Not Supp.
	EH 1-A: There is a greater degree of status heter- ophily among dyads engaged in information-seeking than in friendship communication. EH 1-B: There is a greater degree of change con- tact heterophily among dyads engaged in informa- tion-seeking than in friendship communication.	t-test for difference between two means of	Significant Significant	Supported
я	EH $1-C$: There is a greater degree of movie exposure heterophily among dyads engaged in information seeking than in friendship communication.	independent samples	Significant	
	EH 2-A: There is a greater degree of status heter- ophily among dyads engaged in information-seeking communication in more modern villages than in more modern villages than in more traditional villages.	Spear- man rank	Not Significant	
	EH 2-B: There is a greater degree of change con- tact heterophily among dyads engaged in informa- tion-seeking communication in more modern villages than in more traditional villages.	order correla- tion	Not Significant	Not Supported
	<i>EH 2-C:</i> There is a greater degree of movie exposure heterophily among dyads engaged in information seeking communication in more modern villages than	coeffi- cient	Not Significant	
	in more traditional villages.			

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Not Sup- ported	Not Supported on	Not Supported	Supported
Not Significant Significant Not Significant	Significant but the dif- ference is in the oppo- site directi	Not Significant	Significant
Spear- man rank order order tion cient cient	t-test for difference between two means of same sample	Spearman rank-order correlation coefficient	Spearman rank-order correlation coefficient
There is a greater degree of status heter- mong dyads engaged in friendship communi- in more modern villages than in more tradi- villages. There is a greater degree of change con- cerophily among dyads engaged in friendship ation in more modern villages than in more onal villages. There is a greater degree of movie exposure ily among dyads engaged in friendship com- ily among dyads engaged in friendship com- ton in more modern villages than in more on in more modern villages than in more mal villages.	<i>EH-4:</i> Individuals are more interconnected through interpersonal communication links in information-seeking than in friendship communication.	<i>EH-5:</i> Individuals are more interconnected through interpersonal communication links in information-seeking communication in - more modern villages than in more tradi- tional villages.	<i>EH-6:</i> Individuals are more interconnected through interpersonal communication links in friendship communication in more modern villages than in more traditional villages.
GH-3: There is a EH $3-A$: greater degree ophily of heterophily cation among dyads en- gaged in friend- EH $3-B$: ship communica- tion in more tact he tion in more communi modern villages traditi than in more EH $3-C$: traditional heterop villages. municat	<i>GH-4:</i> Communication Integration is higher in in- formation-seeking commun- ication than in friend- ship communication.	<i>GH-5:</i> Communication integration in information- gration in information- seeking communication is higher in more modern vil lages than in more tradi- tional villages.	<i>GH-6:</i> Communication integration in friendship communication is higher in more modern villages than in more traditional villages.

selected respondents in a village. As there were several dyads for whom no data could be obtained, and the sample was not a random one, the measure of village communication integration represents only the degree of integration of the purposively-selected respondents. Similarly, the measure of village modernity was also influenced by the purposive selection of respondents.

2. Sample Villages

The states and districts in which the eight villages are situated, were selected purposively. Thus, the eight villages are not representative of Indian villages in general. For four of the six general hypotheses, the units of analysis were villages. As mentioned earlier, only eight villages were studied. Such a small number of villages restricted the range of variability in levels of modernity, communication integration, and the degree of heterophily among dyads.

3. Measurements

Information-seeking communication was measured by sociometric questions, such as, "If you needed advice on . . . from which one person . . . would you seek advice first?" Thus, the choices made are preferred or evaluative

or hypothetical, rather than actual. There was no procedure to check whether a nominator did actually seek advice from the nominee or not.

Theoretical Factors

In addition to these methodological factors, there is a need to reexamine the theoretical considerations regarding homophily-heterophily, communication integration, and modernity. Two of the hypotheses for which no support were provided by the data, deal with the relationship between heterophily and levels of village modernity. We postulated a positive relationship between the degree of heterophily in both information-seeking and friendship communication situation, and levels of modernity of vil-The findings suggest that the degree of change lages. contact heterophily is positively related with village modernity in both information-seeking and friendship communication, but significantly only in the latter. Similarly, the relationship between movie exposure heterophily and village modernity was positive. A negative relationship between status heterophily and village modernity was found in both communication situations. This latter finding suggests that with the process of modernization,

increased solidarity among caste groups and social classes may occur in rural India. Thus, the assumption that the attributes on which heterophily is relevant is the same in more modern villages, as well as in more traditional villages, is questionable.

The hypothesis regarding higher communication integration in information-seeking communication than in friendship communication, was not supported. Traditionally, information-seeking communication has been limited to neighbors, friends, and extended family members. Friendship groups (also referred to as "gossip groups") have also been sources of information-sharing among rural villagers. The assumption, implicit in the hypothesis regarding higher communication integration in informationseeking than in friendship communication, was that with the introduction of agricultural innovations, new credit systems, etc., individuals would identify the few knowledgeable individuals in their village and seek information from them. Possibly, information-seeking as such is not a distinguishable phenomenon in rural Indian villages, and to a certain extent, information-seeking is included in friendship communication.

The argument for not finding non-support for the hypothesis about higher communication integration in information-seeking communication in more modern villages than in more traditional villages, is parallel to that mentioned just previously.

Conclusions

Studies dealing with source-receiver relationships in persuasion research, diffusion research, and in small groups, have produced conflicting results. In previous studies, heterophily has been studied without emphasis on the attributes and their relationship with the kind of interaction in which individuals are involved. In the present study, our emphasis on the questions: "Heterophily on what, and why?" provided answers about the different dimensions on which a greater degree of heterophily exists in information-seeking communication than in friendship communication.

In any communication situation, the interacting individuals probably evaluate each other on the dimensions of safety, qualification, and dynamism. The attributes or the dimensions on which low or high heterophily is relevant in a communication situation, differ from one communication situation to another, and from one system to another. rural systems modernize, there is no specific trend of increased or decreased heterophily among both informationseeking and friendship dyads.

Within the limitations stated earlier, we conclude that rural communities in India are more integrated in their communication networks through friendship communication links than through information-seeking communication links. Villages which are relatively more modern are more integrated communicatively than the less modern villages through friendship communication links.

Implications for Change Agencies

The findings of the present study offer the following suggestions for change agencies responsible for the planning and implementation of technological change and the diffusion of innovations:

1) Information flow in rural societies: In rural societies information flows from individuals of higher status who are more innovative, cosmopolite, have more newspaper exposure, and change agent contact. It is

expected that these high-status individuals serve as sources of information in rural societies. A change agent's objective should not be to identify the individuals of highest statuses only. A change agent should identify the different strata of status and then identify the higher-status individuals and the lower-status social groups for whom the former are sources of information.

2) Communication strategy as rural systems become more modern: As rural societies develop and become more modern, individuals who are more cosmopolite and/or have greater newspaper exposure become equally important sources of information to those with higher change agent contact. Thus after the initial stage of implementation, the communication strategy should be to diffuse information through newspapers and other city-oriented (mass) media instead of widespread face-to-face contact by the change agents.

3) Information-seeking and friendship communication: Information-seeking as such is not a predominant phenomenon in Indian villages. These systems are highly integrated through friendship communication links. Thus, a change agent's strategy should be to use the existing friendship groups and attempt to transform the groups' objectives to innovation diffusion.

4) Integration and modernity: In more modern villages, change agents do not have to make such widespread contacts. As the more modern villages are more integrated through friendship relationships, it is economical for the change agencies to contact fewer individuals who have higher outside orientation and newspaper exposure. As the villages become more modern, individuals communicate with others who are more different than they would in a more traditional village.

Suggestions for Future Research

To some extent, the present study is exploratory in nature. Several questions raised in earlier sections provide the lines of research needed on heterophily relationships among interacting dyads, and communication integration in communities. The suggestions for future research are summarized below:

1) <u>Objective</u> measures of heterophily were used in the present study. Research is needed on <u>perceived</u> heterophily among dyads, and its relationship with objective measures.

2) In the present study, heterophily was measured as absolute differences in attributes between individuals in a dyad. Thus, if heterophily exists between a sourcereceiver dyad, the direction of the difference, i.e., whether the source scores higher than the receiver or not, is not known. In future studies, heterophily needs to be measured as differences in attributes of source-receiver dyads <u>taking direction into consideration</u>. We need to analyze dyads with sources scoring higher than receivers, and dyads with sources scoring lower than receivers, separately. This separate analysis may provide some meaningful insights into the nature of heterophily in different communication situations.

3) The limitation in the selection of respondents in the present study suggests that in future studies of heterophily and communication integration, attempts should be made to include at least all the individuals who receive a communication choice.

4) The question raised earlier is whether informationseeking communication can be differentiated from friendship communication, or not. The question becomes more important when one is studying rural villages. In other words, does some sort of information-sharing also occur in friendship

communication in rural traditional societies, where the primary groups have been the sources of all information for a long time? To gain more insight into this problem, the participant observation method of research is suggested.

5) No attitudinal variables were included in the heterophily measures. Research is needed to find out the degree of heterophily in attitudes in information-seeking and friendship communication. Attempts need to be made to identify the relevance of the kinds of attitudes in combination with attributes on which heterophily is necessary for a particular type of communication to occur.

6) Further research is needed to answer the question "<u>Why</u> heterophily?" more thoroughly. Attempts should be made to find out how the answers to the question differ in different communication situations dealing with different types of information.

7) The area of heterophily in confidential or taboo communication needs to be explored further. Studies dealing with family planning communication, communication on abortion, etc., suggest that low heterophily exists between sources and receivers on such taboo topics. Further studies are needed to find out the attributes on which low

or high heterophily is relevant in such taboo communication as that dealing with venereal disease, homosexuality, etc.

8) The present study provided findings on heterophily among dyads engaged in two types of communication situations. Further exploration is needed to find out whether a certain typology of dyads emerges among dyads engaged in different communication situations.
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	Caste	Educa- tion	Cosmopol- iteness	News- paper Exposure	Radio Listen- ing_	Movie Exposure	Innova- tiveness	Level of Living	Change Agent Contact
Education	.21	1.00							
Cosmopolite- ness	.18	.11	1.00						
Newspaper Exposure	.29	.29	.40	1.00					
kadio Listening	01	• 06	14	12	1.00				
fovie Exposure	02	.01	.14	. 08	13	1.00			
Innovativeness	.21	.25	.22	.29	.05	03	1.00		
Level of Living	.36	.29	.13	.25	.13	05	.37	1.00	
Change Agent Contact	.22	.27	. 29	.43	12	.06	.27	.24	1.00

APPENDIX

131



