

EMPATHY AND MODERNIZATION IN
COLOMBIA

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
Cesar Alfonso Portocarrero
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EMPATHY AND MODERNIZATION
IN COLOMBIA

By
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ABSTRACT

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by Cesar A. Portocarrero

In recent years, empathy has been considered a central factor in the modernization of nations. One which facilitates the interaction of the different elements of modernization. However, very little research has been done to determine the extent of the influence of empathy in the process of modernization. The present study attempts to determine the role of empathy in modernization and how it is related to such characteristics of the modernization process as functional literacy, mass media exposure, cosmopolitaness, innovativeness, opinionatedness, achievement motivation, opinion leadership, knowledgeability, and aspirations.

Empathy is here defined as the process whereby an individual projects himself into the mind of another person, understands this person's feelings, and takes them into account when dealing with him. This definition is pragmatic in its intent and purports to be a summary of the two theories which try to explain the concept of empathy.

The present study indexed empathy by means of a five-item scale. Direct relationships between empathy and the selected modernization variables were hypothesized. Furthermore, a paradigm of empathy and modernization was developed to explore the possible conditions that enhance or promote empathy (antecedents of empathy: functional literacy, mass media exposure, and cosmopolitaness) and to compare these conditions with selected indices of modernization (consequents of empathy: innovativeness, opinionatedness, achievement motivation, opinion leadership,

knowledgeability, and aspirations). Age and social status were used as the control variables between the antecedents and empathy, and empathy and the consequent variables.

One hundred and sixty respondents from three peasant communities near Bogota, Colombia, were interviewed by students of sociology of the National University of Colombia.

As a first step the data were analyzed by the use of zero-order product moment correlations. First-order partial correlations, part-correlations, and multiple correlations were also used. A cluster analysis of empathy and its correlates was also performed.

The nine general hypotheses in this study were confirmed. The results of the partial correlations show that age does not affect the relationship between empathy and the variables in study. However, except for functional literacy and educational aspirations, social status affects the relationship between empathy and the other variables in study.

When the effects of empathy were partialled out of the relationship between individual antecedents and consequents, it was found that empathy did not affect these relationships.

The multiple correlation analysis, performed to determine the extent to which the antecedent variables would predict empathy, yielded an R^2 of 29.9 per cent. Mass media exposure accounted for 23.1 per cent of the variance in empathy. However, as shown by the results of the part-correlation analysis, the predictive power of mass media exposure seems to be a function of social status.

The three types obtained as a result of the cluster analysis indicate that the indices of modernization selected for this study are

not part of a single factor; rather, they clustered around three pairs of reciprocal variables.

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CHAPTER I

INTRODUCTION

In recent years, the desire for modernization has been the reason for most aid programs from the "have" to the "have-not" countries. Whereas historically such terms as Europeanization, Westernization, or Americanization were used, "modernization" is now preferred because such term does not imply a political ideology. The nationalistic pride of the countries receiving the aid is thus upheld.

The process of modernization involves changes at different levels. The first level, the most obvious and so the one which has been studied the most, involves changes in technology, education, health, and the learning of new skills. The few economic theories of modernization which have been proposed are primarily concerned with this level of modernization. A second dimension entails the acceptance of new values and the changes brought about by the new technology. A third and deeper level of modernization calls for a change in the attitudes and beliefs of the individuals involved. Further, modernization requires that the individual act upon this new set of beliefs and, since he is a group member, his attitudes and beliefs are those of the group. As changes occur, the whole group must change or the deviant individual must seek another group. These individual changes are the beginnings of the modernization of the individual. It is no longer possible to assume that individuals in traditional societies will change their way of life simply by being exposed to the prospects of material well-being.

Many of the norms of traditional cultures are not conducive to modernization, and may even be opposed to change. Many a program has failed because this has not been recognized. It is almost impossible to avoid confrontation with such norms. We must confront them and turn them to our advantage. That we have not done so is evidenced by the aims of the technical assistance programs. They have been geared towards raising the aspirations of the populace while little attention has been placed on raising their level of achievement.

How does the process of modernization take place? Many theories have been advanced in answer to this question. One of the best known non-economic theories of modernization is that proposed by Lerner (1958) which was empirically based on a study of Middle East countries and historically based on the development of the West. In brief, Lerner's path to modernization involves urbanization, literacy, industrialization, mass media exposure, and political participation. His emphasis is placed on the interaction of these components. They interact in the sense that the efficient functioning of one of them requires the efficient functioning of all the others.

Central to Lerner's model of modernization is the concept of empathy, which he defines as "the capacity to see oneself in the other fellow's situation." It is empathy which facilitates the interaction among these elements of modernization.

In most traditional societies, villages in different parts of the country tend to have less communication with each other than with nearby urban centers. The pattern resembles the spokes of a wheel connected to a central hub, with no direct connection between individual spokes. These villages must develop the capacity to interact. Lerner contends

this capacity can be achieved through empathy, for empathy is the mechanism which makes individual changes deep and social change self-sustaining.

Since the appearance of Lerner's theory, many social scientists have pondered on the implications of empathy on the modernization of traditional cultures. Many have criticized the various aspects of this admittedly-unproven theory, but few improvements upon it have been suggested.

In general, the literature on empathy in the context of modernization is scanty; obviously, we need far more information. Furthermore, since the individual is the nucleus of his society, his attitudes and beliefs will, in the end, determine the policies of his country.

Objectives

The present thesis will attempt to determine the role of empathy in the process of modernization and how it is related to such factors of modernization as functional literacy, mass media exposure, cosmopolitaness, innovativeness, opinionatedness, achievement motivation, opinion leadership, knowledgeability, and aspirations.

The objectives of the present study are:

1. To test the validity, unidimensionality, and reliability of the empathy scale.
2. To develop a paradigm of modernization and to indicate how the concept of empathy is related to the process of modernization.
3. To determine the relationship between empathy and selected antecedents of empathy and modernization, such as functional literacy, mass media exposure, and cosmopolitaness.

4. To determine the relationship of empathy and selected consequents of empathy such as innovativeness, achievement motivation, knowledgeability, opinionatedness, opinion leadership, and aspirations.

CHAPTER II

THEORETICAL BACKGROUND AND HYPOTHESES

Defining Empathy

Ever since Theodore Lipps (1909) coined the German word einfühlung (later translated into English as empathy), the concept has been subject to a series of varied interpretations. As originally intended by Lipps, the term was used to denote a process in which an individual observes the gesture of another, imitates it, evokes through the imitation a previously experienced feeling, and then projects that feeling onto the other person. Consequent to this definition, usage of the term has been centered in a phenomenon other than, or only partly constituent of the phenomenon Lipps intended it to denote.

At present, there are two theories encompassing the interpretations of the concept. A review of the basic principles underlying these two theories is in order.

Inference theory, as stated by Berlo (1960, p. 122), is psychologically oriented; the theory states that a man can observe his own behavior directly and thus can relate his behavior to his internal psychological states. In this way man derives meanings and develops a self-concept from his own observations and interpretations. On the basis of his prior interpretations of himself, he makes inferences about the internal states of others. The inference theory of empathy makes three assumptions: First, that man has first-hand knowledge of his own internal states. Knowledge of other people's internal states is only second-hand. Second, other people, in responding to a given stimulus, perform the same behavior as one performs to express the same state. Finally, man cannot understand

internal states in other people which he has not experienced himself.

The role-taking theory of empathy is based largely on the writings of Mead (1934) and his sociological approach to the development of the self. Mead argues that a person, in order to develop an ability to take the role of others meaningfully, must go through three stages: the preparatory, the play, and the game stages.

The first stage is evident when the child begins to take the role of others without any meaning in the action. At the play stage, the child finds some meaning in these roles. This is a significant stage since, according to the theory, a person does not originally have a self, so the child addresses himself from the role of others. If communication is cut here, the child may keep on doing so; thus he will continue to think of himself in the third person. Through communication he supersedes this stage. The distinctive experience of the game stage is that the child is put in the position of taking a number of parts simultaneously. He must adjust himself to the demands made on him by a variety of people. This is done by adopting a composite picture of the others; the child builds a "generalized other," a standpoint from which he views himself and his behavior. The role-taking theory of empathy divides this last game stage into two parts; at first, the child takes the roles of others symbolically rather than physically and then, in the last step, he forms a generalized other.

Inference theory assumes a concept of self and suggests making inferences about the internal states of others; thus, this "self" concept determines how we empathize. The role-taking theory on the other hand, suggests that the concept of self does not determine empathy but rather that communication produces the concept of self, and role-taking allows

for empathy. The development of self is coterminous with the development of empathy.

Hobart and Fahlberg (1965), commenting on prior approaches to the study of empathy, asserted that there has been a preference by the sociologists for the term "empathy" while the psychologists prefer the term "social perception" or "person perception." These terminologies seem to imply differences in underlying processes. The Meadian approach conceives of empathy as taking the role of the other, a process basic to socialization and the acquisition of the "self." Empathy implies that there is a process of feeling by which one identifies with another. "One feels with and for that person whom he knows well enough to be able to feel his situation" (Hobart and Fahlberg, 1965). In the psychological approach the involvement of feeling is given little attention; the emphasis tends to be on the accuracy or inaccuracy of perception and on sources of errors in perception. Implicit in Hobart and Fahlberg's summary of the two schools of thought is the problem of definition and semantic differences.

Strunk (1957), in quoting five definitions of empathy from different studies, noted that "putting yourself in the other fellow's place" seemed to be consistent throughout all the definitions; however, there is a great variability in the terms used. He also mentioned that there are often attempts to distinguish between empathy and sympathy, empathy and projection, empathy and identification, empathy and insight.¹

It is not the intention here to widen further the gap between the sociologists and psychologists; rather, after Berlo (1960) and Lerner (1958), it will be argued that both approaches have to be taken into

¹A more dramatic presentation of the many ways in which empathy has been used can be found in Gompertz (1960).

account if an acceptable definition of empathy is to be derived. It is evident that man empathizes by utilizing both the psychological and the sociological approaches. We approach empathy first through role-taking, thus constructing a concept of self; based on this concept we begin to make inferences about other people. If our inferences are not rewarding, we go back to role-taking in order to redefine our self so that our inferences will become rewarding within our present social system. The process of role-taking, inference, role-taking, inference, goes on continually, thus making a person able to adapt to his environment. This ability of a person to adapt himself to a new situation is what Lerner (1958) calls "mobility." The mobile person, according to Lerner, is characterized by a high capacity for identification with new aspects of his environment and comes equipped with mechanisms of "projection" and "introjection" which are needed to enlarge his identity. The former facilitates identification by assigning to the object certain attributes of the self, and the latter enlarges identification by attributing to the self certain attributes of the object. Lerner uses the word "empathy" to indicate the interaction of both these mechanisms. His, it could be argued, is one attempt to bring together the two theories of empathy, projection deriving from the inference theory, and introjection from the role-taking theory. Throughout his book, Lerner (1958) uses several definitions of empathy; in later publications (Lerner, 1963) even uses "psychic mobility," as if he would like to drop the term "empathy."

Gompertz (1960), in an extensive review of the literature on empathy, refuses to coin a definition of the term; "Perhaps as someone has said, it [empathy] is impossible to understand unless one is able to empathize," he says.

Throughout the literature, particularly in the psychological tradition, many definitions of empathy are found. Most authors prove the correctness of their definitions but replications are virtually nonexistent.²

With this in mind, the author is wary of coining another definition, for empathy is a concept subject to many biases which, although easily recognized, are difficult to correct. Empathy is thus defined as the process whereby an individual projects himself into the mind of another person, understands this person's feelings, and takes them into account when dealing with him. This definition purports to be a summary, as it were, of Lerner's (1958) definitions which he presents in different parts of his book. In keeping with the theme of the present thesis, the definition is pragmatic in its intent.

Projection is seen here as part of "anticipatory response" (Young, 1947, pp. 118-9) involving perception and assessment of another's gestures in guiding one's own actions. In the sense of "taking the role of the other," some authors make projection almost synonymous with empathy. This use has its theoretical base in the analysis of interaction and communication.

From this author's point of view, empathy is more than projection or role-taking; empathy also involves understanding in the sense of utilization of our role-taking skills in structuring and interpreting our social and intra-personal relationships.

To be able to project oneself and understand another person's mind

²See, for example, Kerr and Speroff (1954) and for a critique, Thorndike (1959).

and feelings, does not in itself make one empathic; one must also act in accordance with this projection and understanding; only then is the process complete.

The Role of Empathy in the Process of Modernization

Ever since the publication of Lerner's (1958) book, which introduced the concept of empathy in the process of modernization, many social scientists have written about and regarded empathy as an important variable in the modernization of nations.³ Although, to the author's knowledge, no explicit replication of Lerner's work has appeared, his empathy index has been used repeatedly⁴ with very little being added to what Lerner said about the role of empathy in the context of modernization.

Empathy, as the capacity to see oneself in the other fellow's situation, assumes that an important step on the road to modernity is the ability to conceive of oneself in somebody else's role. While the achievement of modernization involves the pulling together of a large number of economic and social resources, the development of empathy is more of a personal matter, although the degree to which an individual acquires empathy is in part a function of the underlying social structure (Merton, 1957).

While everyone is able to engage in some kind of role-taking, there are individual differences in the ability to identify with others. Some are able to "feel with" other people, but others are detached and can see people only from the vantage point of a spectator who is not involved in

³Eister (1962), Frey (1964), Rao (1963), Pool (1964), and Roy (1964), to mention a few.

⁴See Footnote 3 supra. Some modifications of the original index were used however.

the affairs of his peers. When empathy is absent, even human beings are treated as if they were simply physical objects. The most callous disregard for others occurs even among those who mean well, simply because they do not identify themselves with the people with whom they deal. Seeing another person as a "you," as Buber (in Shibutani, 1961, p. 334) put it, instead of an "it" implies a conception of his being endowed with qualities much like one's own.

Past studies (Rogers, 1962, p. 256) in more developed societies have indicated that there is considerable disagreement between the role expectations of the local client system and the change agent, and the agent's self-definition of his role. Perceptions of the change agent by his client system may affect his success in securing change; in a traditional system, the social distance between the change agent and his clients is generally large and it remains so for many years. It is contended here that utilization of the empathic potential on both sides could facilitate this relationship and thus make for a successful rapport between agent and clients.

It can further be argued that it is through this ability to empathize that a person becomes acquainted with the norms, attitudes and ideals of his group, community, and nation. The immediate effect of empathy is the control which the individual is able to exercise over his own responses; he now carefully considers his neighbor's feelings, or his group's norms, before making some decision. Modifying what Mead (1934) pointed out, it is this control of the individual himself through taking the role of the other that leads to the value of empathy in that it carries the cooperative process of human beings farther than that of herds or insect societies.

Persuing the Meadian line of thought a little further, it is evident that some people are more able to empathize than others. These high empathizers may become the leaders of their villages because they are able to see the needs of the whole populace, thus unifying the different groups within the village. These leaders then become an important part in the development of cooperative activity which will later involve the nation as a whole.

It seems apparent, then, that the empathic ability of an individual can transcend his group, extending into his village and even to his nation. When this happens, isolated villages are better able to cooperate and communicate with one another to discover common needs and goals and thus participate in cooperative activity which will hopefully change their mode of living.

A Paradigm of Empathy and Modernization

In order to develop a better understanding of the functions and importance of empathy in the process of modernization, it is necessary to relate empathy with other variables considered to be relevant to the process. This analysis can be done by exploring the possible conditions that enhance or promote empathy (antecedent variables) and comparing these conditions with selected indices of modernization. This approach has its theoretical basis on Rogers' (1966) paradigm, in turn largely derived from the works of Deutschmann (1963) and Lerner (1958). Figure 1 is a representation of this type of analysis. It should be cautioned that the terms "antecedents" and "consequents" are here used to imply a probable time-order relationship and not necessarily a cause-effect relation. Further, it should be pointed out that a change in the value of the consequents may cause a corresponding change in the antecedents.

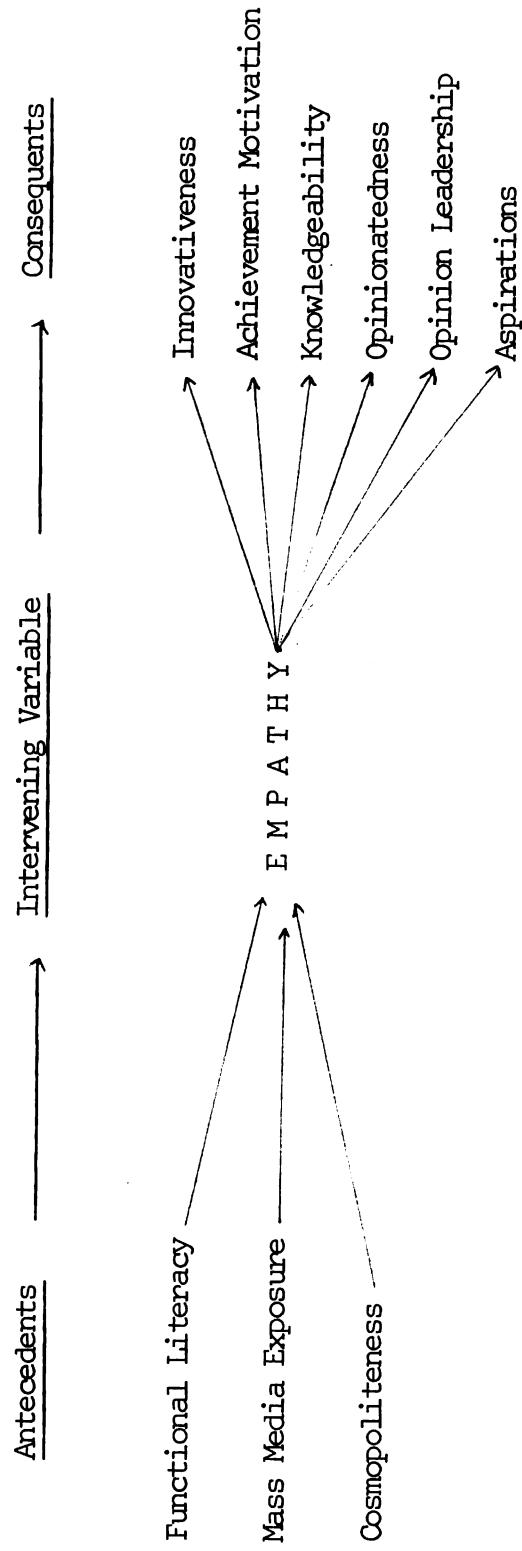


Figure 1. Paradigm of the Role of Empathy in the Modernization Process.

Antecedents of Empathy

Functional Literacy

The recent definition of functional literacy by Rogers and Herzog (1966) is pertinent to this study. They state, "Functional literacy is the ability to read and write adequately for carrying out the functions of the individual's role in his salient social system." This definition, in keeping with a statement by UNESCO (1963) experts, clearly implies that literacy is more than the simple skill of reading and writing; it is a process which is different for different roles, requirements of which change as the individual changes.

It is in this sense that Lerner (1958) uses "literacy" in his proposed model of modernization, in which he considers it both the index and the agent of the second phase of the process. In relating literacy to empathy he contends, "The very act of achieving distance and control over a formal language gives people access to the world of vicarious experience and trains them to use the complicated mechanism of empathy which is needed to cope with this world." (Lerner, 1958, p. 64). He reports that data from Syria and Turkey show a strong relationship between literacy and empathy.

General Hypothesis I: Degree of empathy varies directly with degree of functional literacy.

Mass Media Exposure

Mass media is here broadly defined as an impersonal means of communication by which visual and/or verbal messages are transmitted from a source of one or more individuals to an audience of many.

Whereas historically physical mobility was the only means of

keeping contact with the rest of the world, the mass media now provides a way of imaginative expansion to faraway lands. Poor roads, or the lack of them, cannot stop the flow of some kind of mass communication which, in some instances, enhances the people's empathic skill to a point where they can easily imagine themselves as strange persons in strange situations and places.

This contention is supported by the findings of Frey (1964) in Turkey where peasants had higher empathy with the Prime Minister of the country than with an extra-village lesser government official. Frey noted that the empathic role with the Minister could be related to the Minister's wide exposure via the mass media of communication. Frey agrees with Lerner in considering the mass media as the mobility multiplier. Rao (1963), on the other hand, sees the mass media as the great smoother of transition, for when information arrives in a community, it is used first by the power holders. However, when the community notices the changes effected by the use of the information, questions are asked; if the channels of information are few and controlled, the resentment of the populace may increase. If, on the other hand, these channels are numerous and unrestricted, the changes can be smoothly effected. The economic, social, and political ideas brought in by the mass media increase the villager's sphere of action, thus promoting the understanding and consensus necessary for a modern society.

General Hypothesis II: Degree of empathy varies directly with degree of mass media exposure.

Cosmopolitaness

Based on the assumption that an individual's empathic ability can be enhanced by cosmopolitaness, defined as the degree to which an

individual's orientation is external to his social system (Rogers, 1962, p. 17), it can be argued that in the process of modernization cosmopolitanism is indeed an antecedent of empathy. As Lerner (1958, p. 52) points out, "The historic increase of psychic mobility begins with expansion of physical travel."

If an individual is going to change his mode of life, he needs to be able to look beyond his village, and in so doing his empathic skills should become more efficient because of the new roles and situations he will be exposed to. It should be pointed out that the "external orientation" to which Rogers' definition refers is to be interpreted in this study as "urban orientation," the extent to which the villagers travel to urban centers. Obviously, the villagers' desire to travel can be curtailed by their economic condition and by the availability of transportation to the urban centers. Nevertheless, when Rao (1963) tried to reconstruct what had happened to make his two Indian villages so different from one another in modernity, he concluded that the key difference between them was the existence of a road that had been put through the one modernizing village to a nearby small city. Over this road villagers contacted the urban center, and when a small industry moved to the village, the people were prepared for it; their receptivity had been modified by their cosmopolitanism.

General Hypothesis III: Degree of empathy varies directly with degree of cosmopolitanism.

Consequents of Empathy

The following indices of modernization were selected as consequents of empathy: innovativeness, achievement motivation, knowledgeability,

opinionatedness, opinion leadership and aspirations.

Innovativeness

Innovativeness, defined by Rogers (1962) as the degree to which an individual is relatively earlier in adopting new ideas than are the other members of his social system, is believed to be one of the characteristics of a modernizing person. Whereas a modernist welcomes change, a traditionalist resists it.

One of the generalizations in the diffusion of innovations research tradition is that innovators have a type of mental ability different from that of later adopters; innovators must be able to adopt new ideas mainly from the mass media, and since they are the first to adopt, they cannot copy the adoptions from their peers. What makes the innovators behave in this manner? Perhaps it is a difference in the nature of their mental ability. Rogers and Beal (1959) found a high relationship between innovativeness and the ability to deal with abstractions, a type of mental ability they measured by responses to pictures. Rogers (1961) found low but positive relationship between innovativeness and "cloze" scores, which are a crude measure of intelligence.

On the basis of this evidence, it could be argued that innovativeness is a consequent of empathy, in that an empathic individual has a broader, more ample view of the world.

General Hypothesis IV: Degree of innovativeness varies directly with degree of empathy.

Achievement Motivation

Achievement motivation or need for achievement is defined by McClelland (1961) as a desire for excellence in one's occupation. He

argues that the desire for achievement is a cause of national and economic development and individual modernization.

Although, to the author's knowledge, there is no research evidence to support this contention, it could be argued that since an empathic individual is always looking away from his own group, it stands to reason that such an individual would also have a high need for achievement. Thus empathy would have to come before the need for achievement.

General Hypothesis V: Degree of achievement motivation varies directly with degree of empathy.

Knowledgeability

It is contended here that the empathic ability of an individual would make it easier for him to become involved in many different roles and, in that process, learn about them. Thus a highly empathic person would have a more comprehensive knowledge of what is going on in the world.

General Hypothesis VI: Degree of knowledgeability varies directly with degree of empathy.

Opinionatedness

Opinionatedness is defined as the willingness of a person to express his opinions on impersonal matters. Lerner (1958, p. 71) contends that a person becomes participant, thus modern, by learning to have opinions; further, if modernization is the transition to a participant society, the trend of the individuals in that society should be to a constantly expanding opinionatedness. It could be concluded that an empathic person will have more opinions about matters that concern other individuals; indeed Lerner (1958, p. 79) reports high correlations be-

tween top opinion-holders and high empathizers.

That opinionatedness is in fact a consequent of empathy is supported by Lerner (1958, p. 72) who found that empathy was the only satisfactory way to account for some divergent respondents. Such respondents, like most of their peers, were illiterate, rural and non-participant but nevertheless they had a keener interest in impersonal matters and a deeper desire to become participants in the opinion arena.

General Hypothesis VII: Degree of opinionatedness varies directly with degree of empathy.

Opinion Leadership

Opinion leadership, as defined by Rogers and Herzog (1966), is the ability to influence informally other people's attitudes in a desired way and with a relatively high frequency.

Homans (1961, p. 314) states that leaders obtain their positions of influence by rendering valuable and rare services to their groups. It stands to reason that these leaders are preoccupied with impersonal matters; thus it could be argued that empathic individuals would have a better chance of being opinion leaders. This contention is supported by Mead (1934) when he points out that a leader is able to "take in" more roles than his peers and thus put himself into relations with whole groups in his community.

General Hypothesis VIII: Degree of opinion leadership varies directly with degree of empathy.

Aspirations

Aspirations are defined as the desire to achieve something higher or greater. In this study, educational and occupational aspirations will

be used as indicators of the villagers aspirations. Educational aspirations and occupational aspirations are defined as the level of education and the kind of occupation parents desire for their children. As Lerner (1958) points out, peasants are not aware of the opportunities the "outer world" can afford their children. As a person is exposed to the mass media and becomes a cosmopolite, greater opportunities, which he did not have for himself, become apparent and he may desire them for his children. It follows that a man with high aspirations for his children will also have a corresponding high level of empathy which will enable him to perceive the different status levels his children may be able to achieve.

General Hypothesis IX: Degree of aspirations varies directly with degree of empathy.

Control Variables

This study incorporates two control variables, age and social status of the respondents. These were included in order to determine the degree to which they affect the relationship between the selected antecedents of empathy and the selected indices of modernization and empathy.

Past research has shown that there is an inverse relationship between age and modernization variables.⁵ Respondents over 40 years of age score consistently lower on most modernization variables than those from 15 to 40 years of age.

Since age is a factor which cannot be changed in the process of modernization, it can be assumed that the age of the respondents will somewhat reduce the effect of the relationship between the antecedents and empathy and the consequents and empathy.

⁵See Deutschmann (1963) and Deutschmann, Mendez, and Herzog (in preparation).

Social status, on the other hand, is one of the targets of modernization, and a high social status is expected to have an enhancing influence on the relationship between empathy and its antecedents and empathy and its consequents.

CHAPTER III

METHODOLOGY

The Setting

The data for the present study are part of a larger research project, begun in 1963, on the role of opinion leaders in the diffusion of agricultural innovations in Colombia.

A number of other reports provide detailed information on the different characteristics of the three villages selected for this study.¹ Pueblo Viejo, San Rafael, and Cuatro Esquinas are located about 60 miles west of Bogotá, the capital of Colombia, in the foothills of the Andes Mountains in Central Colombia. All three villages, or veredas as they are called in Colombia, are characterized by intensively-cultivated small-sized farms on steep slopes. The inhabitants are of mixed Indian-Spanish stock, with relatively low mass media exposure, low levels of education, and limited economic opportunities. Table 1 shows some of the key characteristics of the three veredas in study.

The Sample and Data Collection

Data were gathered from the chief farm decision-maker by means of a structured personal interview. There were 192 eligible households, but only 160 interviews were obtained. See Table 1 for the percentage of interviews in each village.

Students from the College of Sociology of the National University of Colombia, Bogotá, carried out the interviewing. Similar data-gathering

¹See Rogers and van Es (1964) and Rogers and Neill (1966).

Table 1. Some characteristics of the three Colombian communities.

Characteristics	Pueblo Viejo	San Rafael	Cuatro Esquinas
1. Total number of households	93	61	73
2. Total number of eligible respondents	77	45	68
3. Number of completed interviews	67	36	57
4. Percentage of completed interviews from eligible respondents	87%	80%	84%
5. Mean years of education of the respondent	1.6	2.1	2.2
6. Percentage of respondents with formal education	70%	50%	68%
7. Percentage of respondents who are functionally literate	27%	39%	49%
8. Percentage of respondents reading* a newspaper at least once a week	54%	61%	67%
9. Percentage of respondents reading* a magazine at least once a month	18%	17%	19%
10. Percentage of respondents having seen a film in the past year	69%	72%	63%
11. Percentage of respondents listening to radio at least once a week	55%	56%	68%
12. Percentage of respondents having watched TV in the past year	10%	17%	14%
13. Percentage of respondents using chemical fertilizer	90%	94%	95%
14. Percentage of respondents using a weed sprayer	79%	89%	82%
15. Percentage of respondents possessing a latrine	8%	78%	60%
16. Median farm size in acres	14.2	21.8	19.7
17. Major crop grown	potatoes	potatoes	potatoes

*These figures also include someone else reading to the respondent.

methods were utilized in each of the three villages.

Operationalization of Variables

Dependent Variable

Empathy is the major dependent variable of this study. It is defined as the process whereby an individual projects himself into the mind of another person, understands the person's feelings and takes them into account when dealing with him.

In order to measure this concept a five-item scale was developed. The scale distinguished five public roles and placed them in order from the most local to the most national in responsibility (see Appendix A). Except for the village's President of the Community Board role, the area of concern was also specified, i.e., improvement of the highway, and the respondent was asked to address himself to this problem in his answer. An example of a typical item would be: "If you were the Minister of Education, what would you do for rural schools in Colombia?". The criteria for scoring these items are also presented in Appendix A.

The reliability, internal consistency, and validity of the empathy scale were determined.

1. Reliability

A scale is said to be reliable if, when applied to the same sample of respondents, it consistently yields the same results. In the present study the split-half method of determining scale reliability was used. The items in the scale were divided into two subscales and Pearsonian correlation between the two subtotals was computed. The items in the two subscales were determined by selecting the odd- and even-numbered items. Since each of the subscales has only one-half as many items as the original scale, its degree of reliability has been decreased accordingly. In order

to determine the reliability of the total scale, the Spearman-Brown correction formula was used. When corrected by this formula, the coefficient of reliability for the empathy scale was determined to be .750.

2. Internal Consistency

The degree to which scale items are interrelated is the internal consistency of the scale; it was tested by (1) item-to-total score correlations, and (2) item-to-item correlations.

(1) The five item-to-total correlations varied from .668 to .753 with a median r of .726.²

(2) The 10 item-to-item correlations vary from .323 to .480 with a median r of .407.

It can be thus concluded that the scale is internally consistent. As a check of the scale's unidimensionality, a McQuitty Elementary Linkage Analysis was performed (McQuitty, 1957). This indicated all items to be linked together, confirming the unidimensionality of the scale.

3. Validity

One of the crucial tests of a scale is its validity or the degree to which a scale measures what it purports to measure. The validity of the empathy scale was tested by the use of three judges. Inter-judges correlations were .830, .840, and .860. Furthermore, after a lapse of one year, the items were scored again by one of the original judges with a resulting correlation between his judgments over time of .970.

²An r of .189 is significantly different from zero at the one per cent level.

Independent Variables

1. Functional Literacy

As originally suggested by Mendez and Waisanen (1964), this variable was measured by handing each respondent a small card on which the sentence (in Spanish) "The man moved his hand rapidly in a gesture of respect," was printed. The number of key words, here underlined, that the respondent was able to read correctly was used as a measure of functional literacy. Since its inception, this measure of functional literacy has been used successfully in various forms with peasant respondents in Costa Rica, Mexico, Guatemala, Chile, and India.

2. Mass Media Exposure

Exposure to the mass media was measured by an index of contact with radio, newspapers, cinema, magazines, and television. The respondents were asked to state how many times per week they read a newspaper, how many times they listened to the radio, etc. These raw scores were converted into "sten" scores (Canfield, 1951) and then combined into a mass media exposure index.

3. Cosmopoliteness

In this study, cosmopoliteness was indexed as the number of trips per year taken by the respondent to an urban center.

4. Innovativeness

As it is usually measured, an innovativeness scores is obtained by asking the respondents how many recently-introduced ideas he has adopted and when. In this case, agricultural innovativeness was measured by a score indicating the composite time of adoption of 16 new farm practices. Home innovativeness was measured similarly by using seven new home practices.

5. Achievement Motivation

Achievement motivation or need for achievement was measured with eight sentence completion items, a projective technique developed for Colombia by Rogers and Neill (1966). An example of the items is: "What the farmers in my country need is . . ."; "A good farmer has to . . .", etc. Scores were assigned on a 0 to 5 scale according to criteria previously established.³

6. Knowledgeability

The knowledgeability scores consisted of the number of correct answers to five questions on Latin American politics, business, and farming.

7. Opinionatedness

The respondent's opinionatedness score was obtained by subtracting the number of "no opinion" answers given from the total of ten selected items on the interview schedule.

8. Opinion Leadership

In the present study, opinion leadership was measured as the number of sociometric choices received by a farmer in response to questions asked his peers relating to whose advice they would seek in matters involving new farming ideas, health practices, etc. A single opinion leadership score was formed by combining the scores of the six items used.

9. Aspirations

Levels of occupational and educational aspirations were measured

³For a detailed discussion of the achievement motivation scale see Rogers and Neill (1966).

by asking the respondent the number of years of education and the kind of occupation he wished his oldest child to have. The occupational aspiration was coded in terms of levels of occupational prestige.

Control Variables

Of the two control variables, age and social status, the latter was measured by the interviewer's own assessment of the social status of the respondent among his peers.

Statistical Analyses

Data for all the hypotheses were analyzed using zero-order product-moment correlations. Thus the data were assumed to have interval qualities.

The second step was to control for age and social status in the relationship between the antecedents and empathy, and selected consequents and empathy.

A third kind of analysis was the computation of first-order partial correlations between the antecedents and selected consequents partialing out the effects of empathy. It was this comparison which explicated the intervening properties of empathy.

The fourth step was the computation of a multiple correlation coefficient to determine to what extent the antecedent variables, functional literacy, social status, and mass media exposure were able to predict empathy.

As a final step, a cluster analysis of empathy and its correlates was performed, using the simplified technique developed by McQuitty (1957).

CHAPTER IV

RESULTS

Hypotheses Tested

General Hypothesis I

General Hypothesis I: Degree of empathy varies directly with degree of functional literacy.

Empirical Hypothesis I: Empathy scores vary directly with functional literacy scores. Zero-order correlation (Table 2) between empathy and literacy is .363, which is more than the .189 required for significance at the one per cent level. The hypothesis is supported.

The zero-order correlation between these two variables shows that functional literacy accounts for 13.2 per cent of the variance in empathy. The first-order partial correlation (Table 3) between empathy scores and literacy scores, controlling on social status, is .203, which is significant at the one per cent level.¹ The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level.² This shows that social status does not intervene in the relationship between empathy and functional literacy.

The first-order partial correlation between empathy scores and literacy scores, controlling on age, is .325, which is significant at the

¹Significance from zero was tested by the t test. See McNemar (1962, p. 167).

²The significance of the differences was obtained by transforming the r's into Z scores and testing the difference between the Zs. Significant differences of the Z scores means that the two r's are significantly different (McNemar, 1962, pp. 139-140).

Table 2. Matrix of intercorrelations of the dependent, independent, and control variables.

Variables ^a	Variables ^a													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	--	.363**	.520**	.282**	.255**	.366**	.279**	.448**	.388**	.281**	.268**	.417**	-.186*	.595**
2		--	.399**	.266**	.207**	.426**	.272**	.421**	--	.260**	.177*	.273**	-.295**	.346**
3			--	.518**	.320**	.563**	.316**	.595**	--	.312**	.304**	.419**	-.212**	.556**
4				--	.135*	.603**	.282**	.503**	--	.259**	.208**	.436**	-.152*	.433**
5					--	.251**	.048	.197**	--	.404**	.178*	.174*	-.156*	.408**
6						--	.245**	.577**	--	.234**	.326**	.477**	-.189**	.507**
7							--	.268**	--	.166*	.051	.141*	-.214**	.289**
8								--	--	.256**	.195**	.566**	-.269**	.503**
9									--	--	--	--	--	--
10										--	.135*	.065	-.166*	.395**
11											--	.429**	-.211**	.276**
12												--	-.190**	.403**
13													--	.263**
14														--

* Significant at the 1 per cent level
 ** Significant at the 5 per cent level

^aThe variables include:

- | | | |
|--------------------------------|---------------------------|------------------------------|
| 1. Empathy | 6. Home innovativeness | 11. Occupational aspirations |
| 2. Functional literacy | 7. Achievement motivation | 12. Educational aspirations |
| 3. Mass media exposure | 8. Knowledgeability | 13. Age |
| 4. Cosmopolitaness | 9. Opinionatedness | 14. Social status |
| 5. Agricultural innovativeness | 10. Opinion leadership | |

Table 3. Zero-order correlation and first-order partial correlation (controlling on age and social status) of the dependent and selected independent variables.

Independent Variables	Empathy					
	Controlling on Age			Controlling on Status		
	Zero r	C.D. ^a	Partial with Age	C.D.	Partial with Status	Z Value
Functional literacy	.363**	13.2	.325**	10.6	.203**	4.1 1.54
Mass media exposure	.520**	27.0	.500**	25.0	.290**	8.4 2.46**
Cosmopoliteness	.282	8.0	.259**	6.7	.036	0.1 2.20**
Agricultural innovativeness	.255**	6.5	.227**	5.2	.011	0.0 2.18**
Knowledgeability	.448**	20.1	.418**	17.5	.222**	4.9 2.31**
Educational aspirations	.417**	17.4	.398**	15.8	.249**	6.2 1.70*

^aC.D. Is the coefficient of determination, or r^2 , which expresses the percentage of variance shared in common by the two variables.

* Significant at the 5 per cent level.

** Significant at the 1 per cent level.

one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that age does not intervene in the relationship between empathy and functional literacy.

General Hypothesis II

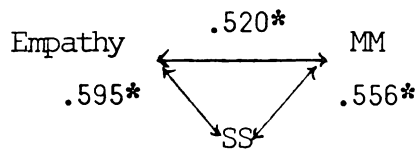
General Hypothesis II: Degree of empathy varies directly with degree of mass media exposure.

Empirical Hypothesis II: Empathy scores vary directly with mass media exposure scores. Zero-order correlation between empathy and mass media is .520, which is more than the .189 required for significance at the one per cent level. The hypothesis is supported.

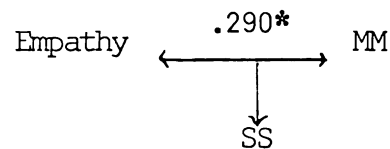
The zero-order correlation between these two variables shows that mass media exposure accounts for 27.0 per cent of the variance in empathy. The first-order partial correlation between empathy scores and mass media exposure scores, controlling on social status, is .290, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is significant at the one per cent level. This shows that social status intervenes in the relationship between empathy and mass media exposure.

The first-order partial correlation between empathy scores and mass media exposure scores, controlling on age, is .500, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that age does not intervene in the relationship between empathy and mass media exposure.

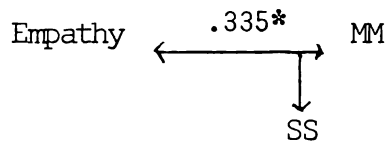
At this point, a part-correlation analysis was performed. When in the zero-order correlation between empathy and mass media, the effect of social status is removed from mass media alone, the resulting part-correlation is .335. However, when the effect of social status is removed from empathy and not from mass media exposure, the part-correlation is .040, which is not significantly different from zero. Thus, social status affects the relationship between empathy and mass media exposure largely through its effect on empathy. Figure 2 may help to clarify this point.



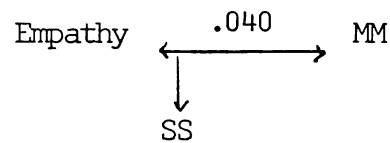
A. - Zero-order r



B. - First-order partial r



C. - Part-correlation
SS out of MM only



D. - Part-correlation
SS out of Empathy only

*Significantly different from zero at the one per cent level.

Figure 2. Zero-Order, First-Order and Part-Correlations Between Empathy, Mass Media Exposure and Social Status.

General Hypothesis III

General Hypothesis III: Degree of empathy varies directly with degree of cosmopolitaness.

Empirical Hypothesis III: Empathy scores vary directly with cosmopolitaness scores. Zero-order correlation between empathy and cosmopolitaness is .282, which is more than the .189 required for significance at the one per cent level. The hypothesis is supported.

The zero-order correlation between these two variables shows that cosmopolitaness account for 8.0 per cent of the variance in empathy. The first-order partial correlation between empathy scores and cosmopolitaness scores, controlling on social status, is .036, which is not significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is significant at the one per cent level. This shows that social status intervenes in the relationship between empathy and cosmopolitaness.

The first-order partial correlation between empathy scores and cosmopolitaness scores, controlling on age, is .259, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that age does not intervene in the relationship between empathy and cosmopolitaness.

When functional literacy, mass media exposure, and cosmopolitaness were analyzed together to determine their effect on empathy scores, they yielded a multiple correlation, R , of .547, or an R^2 of .299. The amount of variance in empathy scores explained by each antecedent is as follows:

<u>Individual Variables</u>	<u>Variation in Empathy</u>
Mass Media Exposure	23.1%
Functional Literacy	6.7%
Cosmopolitaness	<u>0.1%</u>
Total	29.9%

General Hypothesis IV

General Hypothesis IV: Degree of innovativeness varies directly with degree of empathy.

Empirical Hypothesis IVa: Agricultural innovativeness scores vary directly with empathy scores. Zero-order correlation between agricultural innovativeness and empathy is .255, which is more than the .189 required for significance at the one per cent level. Empirical Hypothesis IVa is supported.

The zero-order correlation between these two variables shows that empathy accounts for 6.5 per cent of the variance in agricultural innovativeness. The first-order partial correlation between agricultural innovativeness scores and empathy scores, controlling on social status, is .011, which is not significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is significant at the one per cent level. This shows that social status intervenes in the relationship between agricultural innovativeness and empathy.

The first-order partial correlation between agricultural innovativeness scores and empathy scores, controlling on age, is .227, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that age does not intervene in the relationship between agricultural innovativeness and empathy.

Empirical Hypothesis IVb: Home innovativeness scores vary directly with empathy scores. Zero-order correlation between home innovativeness and empathy is .366, which is more than the .189 required for significance

at the one per cent level. Empirical Hypothesis IVb is supported.

The two empirical hypotheses derived from the General Hypothesis IV were supported. Therefore, General Hypothesis IV is also supported.

General Hypothesis V

General Hypothesis V: Degree of achievement motivation varies directly with degree of empathy.

Empirical Hypothesis V: Achievement motivation scores vary directly with empathy scores. Zero-order correlation between achievement motivation and empathy is .279, which is more than the .189 required for significance at the one per cent level. The hypothesis is supported.

The zero-order correlation between these two variables shows that empathy accounts for 7.8 per cent of the variance in achievement motivation.

General Hypothesis VI

General Hypothesis VI: Degree of knowledgeability varies directly with degree of empathy.

Empirical Hypothesis VI: Knowledgeability scores vary directly with empathy scores. Zero-order correlation between knowledgeability and empathy is .448, which is more than the .189 required for significance at the one per cent level. The hypothesis is supported.

The zero-order correlation between these two variables shows that empathy accounts for 20.1 per cent of the variance in knowledgeability. The first-order partial correlation between knowledgeability scores and empathy scores, controlling on social status, is .222, which is significant at the one per cent level. The difference between the zero-order

correlation and the first-order partial correlation between these two variables is significant at the one per cent level. This shows that social status intervenes in the relationship between knowledgeability and empathy.

The first-order partial correlation between knowledgeability scores and empathy scores, controlling on age, is .418, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that age does not intervene in the relationship between knowledgeability and empathy.

General Hypothesis VII

General Hypothesis VII: Degree of opinionatedness varies directly with degree of empathy.

Empirical Hypothesis VII: Opinionatedness scores vary directly with empathy scores. Zero-order correlation between opinionatedness and empathy is .338, which is more than the .189 required for significance at the one per cent level. The hypothesis is supported.

The zero-order correlation between these two variables shows that empathy accounts for 11.4 per cent of the variance in opinionatedness.

General Hypothesis VIII

General Hypothesis VIII: Degree of opinion leadership varies directly with degree of empathy.

Empirical Hypothesis VIII: Opinion leadership scores vary directly with empathy scores. Zero-order correlation between opinion leadership and empathy is .281, which is more than the .189 required for significance at the one per cent level. The hypothesis is supported.

The zero-order correlation between these two variables shows that empathy accounts for 7.9 per cent of the variance in opinion leadership.

General Hypothesis IX

General Hypothesis IX: Degree of aspirations vary directly with degree of empathy.

Empirical Hypothesis IXa: Occupational aspirations scores vary directly with empathy scores. Zero-order correlation between occupational aspirations and empathy is .268, which is more than the .189 required for significance at the one per cent level. Empirical Hypothesis IXa is thus supported.

The zero-order correlation between these two variables shows that empathy accounts for 7.2 per cent of the variance in occupational aspirations.

Empirical Hypothesis IXb: Educational aspirations scores vary directly with empathy scores. Zero-order correlation between educational aspirations and empathy is .417, which is more than the .189 required for significance at the one per cent level. Empirical Hypothesis IXb is supported.

The zero-order correlation between these two variables shows that empathy accounts for 17.4 per cent of the variance in educational aspirations. The first-order partial correlation between educational aspirations scores and empathy scores, controlling on social status, is .249, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that social status does not intervene in the relationship between educational aspirations and empathy.

The first-order partial correlation between educational aspirations scores and empathy scores, controlling on age, is .398, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that age does not intervene in the relationship between educational aspirations and empathy.

The two empirical hypotheses derived from the General Hypothesis IX were supported. Therefore, General Hypothesis IX is also supported.

All the general and empirical hypotheses tested in this study were supported.

Effects of the Control Variables

Social status acts as an intervening variable in the relationship between empathy and mass media exposure, cosmopolitaness, agricultural innovativeness, and knowledgeability. Social status does not intervene in the relationship between empathy and functional literacy, and educational aspirations.

Age does not intervene in the relationships between empathy and functional literacy, mass media exposure, cosmopolitaness, agricultural innovativeness, knowledgeability, and educational aspirations.

Empathy as an Intervening Variable

This section will report the results of the statistical analyses done in order to detect the function of empathy as an intervening variable between antecedents and selected consequents (Table 4).

1. The zero-order correlation between functional literacy scores and agricultural innovativeness scores is .207, significant at the one per cent level, showing that literacy accounts for 4.3 per cent of the

Table 4. Zero-order correlation and first-order partial correlation (controlling on empathy) of antecedent and selected consequent variables.

Selected Consequents	Antecedents									
	Functional Literacy					Mass Media Exposure				
	Zero r	C.D.	Partial	C.D.	Z value	Zero r	C.D.	Partial	C.D.	Z value
Agricultural innovativeness	.207**	4.3	.132	1.7	.73	.320**	10.2	.230**	5.3	.87
Knowledgeability	.421**	17.7	.310**	9.6	1.12	.595**	35.4	.467**	21.8	1.49
Educational aspirations	.273**	7.4	.140*	2.0	1.20	.419**	17.6	.260**	6.8	1.61

	Antecedents				
	Cosmopoliteness				
	Zero r	C.D.	Partial	C.D.	Z value
Agricultural innovativeness	.135*	1.8	.064	.4	.63
Knowledgeability	.503**	25.3	.436**	19.0	.68
Educational aspirations	.436**	19.0	.370**	13.7	.73

* Significant at the 1 per cent level

** Significant at the 5 per cent level

variance in innovativeness. The first-order partial correlation between literacy scores and innovativeness scores, controlling on empathy, is .132, which is not significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that empathy does not intervene in the relationship between the antecedent variable of functional literacy and the consequent variable of innovativeness.

2. The zero-order correlation between functional literacy scores and knowledgeability scores is .421, significant at the one per cent level, showing that literacy accounts for 17.7 per cent of the variance in knowledgeability. The first-order partial correlation between literacy scores and knowledgeability scores, controlling on empathy, is .310, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that empathy does not intervene in the relationship between the antecedent variable of functional literacy and the consequent variable of knowledgeability.

3. The zero-order correlation between functional literacy scores and educational aspirations scores is .273, significant at the one per cent level, showing that literacy accounts for 7.4 per cent of the variance in educational aspirations. The first-order partial correlation between literacy scores and educational aspirations scores, controlling on empathy, is .140, which is significant at the five per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent

level. This shows that empathy does not intervene in the relationship between the antecedent variable of functional literacy and the consequent variable of educational aspirations.

4. The zero-order correlation between mass media exposure scores and agricultural innovativeness scores is .320, significant at the one per cent level, showing that mass media exposure accounts for 10.2 per cent of the variance in agricultural innovativeness. The first-order partial correlation between mass media exposure scores and agricultural innovativeness scores, controlling on empathy, is .230, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that empathy does not intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable of agricultural innovativeness.

5. The zero-order correlation between mass media exposure scores and knowledgeability scores is .595, significant at the one per cent level, showing that mass media exposure accounts for 35.4 per cent of the variance in knowledgeability. The first-order partial correlation between mass media exposure scores and knowledgeability scores, controlling on empathy, is .467, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that empathy does not intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable of knowledgeability.

6. The zero-order correlation between mass media exposure scores and educational aspiration scores is .419, significant at the one per cent level, showing that mass media exposure accounts for 17.6 per cent of the variance in educational aspirations. The first-order partial correlation between mass media exposure scores and educational aspiration scores, controlling on empathy, is .260, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between mass media exposure scores and educational aspiration scores, controlling on empathy, is .260, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that empathy does not intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable educational aspirations.

7. The zero-order correlation between cosmopolitaness scores and agricultural innovativeness scores is .135, significant at the five per cent level, showing that cosmopolitaness accounts for 1.8 per cent of the variance in agricultural innovativeness. The first-order partial correlation between cosmopolitaness scores and agricultural innovativeness scores, controlling on empathy, is .064, which is not significant at the five per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the five per cent level. This shows that empathy does not intervene in the relationship between the antecedent variable of cosmopolitaness and the consequent variable of agricultural innovativeness.

8. The zero-order correlation between cosmopolitaness scores and knowledgeability scores is .503, significant at the one per cent level, showing that cosmopolitaness accounts for 25.3 per cent of the variance in knowledgeability. The first-order partial correlation between cosmopolitaness scores and knowledgeability scores, controlling on empathy, is .436, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that empathy does not intervene in the relationship between the antecedent variable of cosmopolitaness and the consequent variable of knowledgeability.

9. The zero-order correlation between cosmopolitaness scores and educational aspiration scores is .436, significant at the one per cent level, showing that cosmopolitaness accounts for 19.0 per cent of the variance in educational aspirations. The first-order partial correlation between cosmopolitaness scores and educational aspiration scores, controlling on empathy, is .370, which is significant at the one per cent level. The difference between the zero-order correlation and the first-order partial correlation between these two variables is not significant at the one per cent level. This shows that empathy does not intervene in the relationship between the antecedent variable of cosmopolitaness and the consequent variable of educational aspirations.

Although these results show that empathy does not intervene significantly in the relationship between the selected antecedents and consequents, a rapid examination of Table 4 indicates that in all nine cases the partial r decreases.

A Cluster Analysis of Empathy and Its Correlates

The McQuitty method of cluster analysis performed on empathy and its correlates yielded three clusters or "types" which located, through the size of r 's, the variables more closely related (McQuitty, 1957). Figure 3 presents these types. As a further probe, the same procedure was applied, this time using the next to the highest r 's; this resulted in one cluster (see Figure 3).

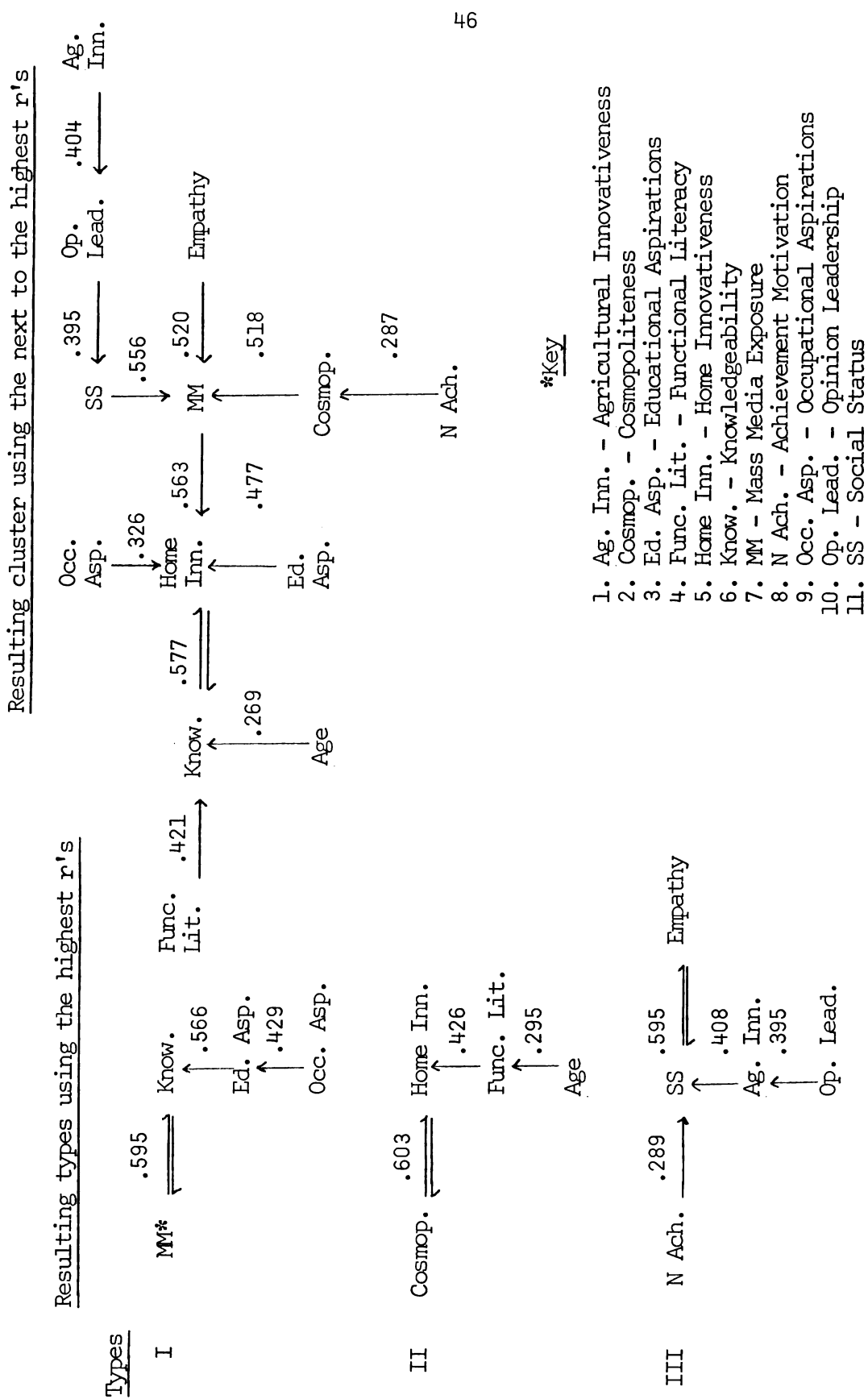


Figure 3. Cluster Analysis of Empathy and Its Correlates.

CHAPTER V
SUMMARY AND CONCLUSIONS

Summary

The main purpose of the present study was to determine the role of empathy in the process of modernization of peasant cultures. Empathy is defined as the process whereby an individual projects himself into the mind of another person, understands this person's feelings and takes them into account when dealing with him.

The sample for the present study consisted of 160 farmers in three rural communities in the Andes Mountains of Colombia. An empathy scale patterned after Lerner's (1958) original scale was used to measure the dependent variable, empathy. Zero-order and first-order partial correlations were used to test the nine major hypotheses.

The objectives of the present thesis were:

1. To test the validity, unidimensionality, and reliability of the empathy scale.
2. To develop a paradigm of modernization and to indicate how the concept of empathy is related to the process of modernization.
3. To determine the relationship between empathy and selected antecedents of empathy and modernization such as functional literacy, mass media exposure, and cosmopolitaness.
4. To determine the relationship of empathy and selected consequents of empathy such as innovativeness, achievement motivation, knowledgeability, opinionatedness,

opinion leadership, and aspirations.

In addition to the relationships expressed in the hypotheses, empathy was postulated to be an intervening variable between the antecedents and consequents selected for this study.

Interpretation of Results

General Hypothesis I

General Hypothesis I: Degree of empathy varies directly with degree of functional literacy.

Empirical Hypothesis I was supported. Functional literacy is directly related to empathy. Functional literacy, as a skill that helps man to manipulate and understand verbal and graphic symbols, can also be considered as a necessary condition for the further development of the ability to manipulate impersonal symbols, thus extending the social space of the individual.

When the effects of social status and age were removed from the relationship between functional literacy and empathy, it was found that neither control variables affected this relationship. The suggestion is that the relationship between functional literacy and empathy is independent of social status and age of the respondent. The implications of this finding, together with the findings for the other two antecedent variables, will be discussed later.

General Hypothesis II

General Hypothesis II: Degree of empathy varies directly with degree of mass media exposure.

Empirical Hypothesis II was supported. Empathy is directly related to mass media exposure. The zero-order correlation between mass media

exposure scores and empathy scores is one of the highest obtained in this study (.520). This would suggest that mass media exposure is an important predictor of empathy. However, when we remove the effects of social status from this relationship, although the partial correlation is still significant at the one per cent level, the difference between the zero-order correlation and the partial correlation is also significant. Social status intervenes on the relationship between empathy and mass media exposure.

When age was partialled out of the relationship between mass media exposure and empathy, it was found that this relationship was not changed. Therefore, the data indicate that the relationship between mass media exposure and empathy is affected by social status but not by the age of the individual.

General Hypothesis III

General Hypothesis III: Degree of empathy varies directly with degree of cosmopolitaness.

Empirical Hypothesis III was supported. Although the correlation between empathy scores and cosmopolitaness scores was significant, cosmopolitaness compared with the other two antecedent variables, accounted for the lowest percentage of the variance in empathy (7.9%).

When the effect of social status was removed from the relationship between empathy and cosmopolitaness, the partial correlation was not significant. Although the present data do not permit further probing, perhaps it is the economic dimension of "social status" which intervenes in the relationship of empathy and cosmopolitaness. Respondents may not travel to nearby cities because of their lack of money.

The relationship between empathy and cosmopolitanism is not affected by the age of the respondent.

Predicting Empathy

At this point, it seems appropriate to discuss the joint relationship of the three selected antecedents and their power to predict empathy as well as the effect of the two control variables, age and social status.

As stated in the previous chapter, the three selected antecedents, mass media exposure, functional literacy, and cosmopolitanism, together account for 29.9 per cent of the variance in empathy. Twenty-three per cent of this variance is explained by mass media exposure. It would seem that mass media exposure is the best predictor of empathy but, as stated earlier, this relationship is affected by the social status of the respondents. This poses an interesting question: Is the respondents' ability to empathize affected by their exposure to the mass media or by their social status? The partial correlation analysis, which was performed in an attempt to answer this problem, shows that social status is a stronger influence on empathy than on mass media exposure in the relationship of empathy and mass media exposure. This would seem to substantiate the author's contention that the reported empathy of our Colombian respondents is partly a function of their social status. Further evidence is presented by the relatively high correlation (.595) between empathy and social status. On the other hand (although we cannot accurately test this notion with the present data), perhaps our empathy scale is confounded with some measure of social status.

To be able to vocalize a few words written on a card does not require an understanding of those symbols; thus, a functionally literate

individual does not have to be empathic nor high on a social status scale. Likewise, no special psychological ability is needed for exposure to the mass media. However, empathic ability is necessary if an individual is going to be affected by the messages he receives. Thus an increase in the mass media per se would not increase empathy in the populace; this could probably be done by an increase in the socioeconomic status of the peasants involved in the study. An increase in their social status would widen the people's horizons, thus making them more amenable to think about the problems and needs of their fellow man; thus an increase in empathy would result. The present situation of these villagers does not seem to be conducive to the development of empathy; they are too preoccupied with problems of survival.

General Hypothesis IV

General Hypothesis IV: Degree of innovativeness varies directly with degree of empathy.

Empirical Hypothesis IV was supported. Empathy can be considered a predictor of innovativeness.

One of the salient values of an innovator is his venturesomeness. An innovator is almost compelled to try new ideas. But in a traditional setting venturesomeness is not precisely a cherished value; thus an individual does not have many examples to follow. An innovator has to be self-made. On the basis of these data, it is contended that empathy is the underlying ability that sends a man on the path of the new while his peers are contented with their present situation.

Although age does not affect the relationship between innovativeness and empathy, social status does intervene in such relationship.

General Hypothesis V

General Hypothesis V: Degree of achievement motivation varies directly with degree of empathy.

Empirical Hypothesis V was supported. Empathy can be considered a predictor of achievement motivation. It is obvious that need for achievement is not present in all people. This is particularly true in traditional villages. Empathy, as an underlying mental ability, compels individuals to seek to become like the people whose roles they are able to understand and mentally emulate.

General Hypothesis VI

General Hypothesis VI: Degree of knowledgeability varies directly with degree of empathy.

Empirical Hypothesis VI was supported. The correlation between knowledgeability scores and empathy scores is one of the highest in this study (.448). This would suggest that empathy is a good predictor of knowledgeability. Since, in short, empathy is the ability of a person to put himself in the shoes of another person, it stands to reason that an empathic individual would be acquainted with many more and a greater variety of roles than a non-empathic individual.

General Hypothesis VII

General Hypothesis VII: Degree of opinionatedness varies directly with degree of empathy.

Empirical Hypothesis VII was supported. The relationship between empathy and opinionatedness has been considered of utmost importance in the process of modernization (Lerner, 1958). The significance of empathy for an individual lies in his interest in impersonal matters, which in turn

brings about opinions. It follows that if a person "feels for" another person or persons, he would be inclined to express his opinions in matters which affect those persons with whom he empathizes because, in his own mind, those matters are also his personal concern.

General Hypothesis VIII

General Hypothesis VIII: Degree of opinion leadership varies directly with degree of empathy.

Empirical Hypothesis VIII was supported. Empathy seems to be a predictor of opinion leadership. Mead (1934) stresses the role of empathy in the formation of leaders. Those individuals who, because of their empathic ability, see the needs and goals of their peers, are the ones most likely to become the leaders of their communities. This of course does not imply that the only way to become a leader is through the development of empathy; it means that these individuals were chosen as opinion leaders by their peers because they were sufficiently interested in someone else's problems to take time to go over the problem and advise correctly (we assume this or otherwise they would not have been chosen as opinion leaders) the seeker of information. This shows the leader's interest in other than his own purview.

General Hypothesis IX

General Hypothesis IX: Degree of aspirations varies directly with degree of empathy.

Empirical Hypotheses IXa and IXb derived from this general hypothesis were supported. Occupational and educational aspirations can be predicted from the level of empathy of the respondents. An individual with empathic ability is able to visualize the many opportunities his

children might have. In view of this, his aspirations for the future life of his children may increase because he sees the many other things afforded by the world outside his own community.

Control Variables

Throughout the nine hypotheses tested, it is interesting to note that the social status of the respondents does not affect the relationship between empathy and literacy, and empathy and educational aspirations, whereas it does affect the relationship between empathy and the other variables in the study, namely, mass media exposure, cosmopoliteness, innovativeness, opinionatedness, achievement motivation, opinion leadership, knowledgeability, and occupational aspirations. Perhaps the government projects of literacy and education in general have penetrated to the population in such a way that these campaigns are accepted as everyday events overriding the centuries-old idea that education is only for the few fortunate.

The relatively low social status of the respondents tends to depress the relationship between empathy and the antecedents, and empathy and the consequent variables. It was postulated in an earlier chapter that this may be due to the unwillingness of the farmers to deviate from their village norms, unwillingness dictated by their social status.

Age does not affect the relationship between the antecedents and empathy, and the consequents and empathy. Thus the relationship between empathy and its correlates is not confounded with the age of the respondents.

Cluster Analysis

The three types obtained as a result of the cluster analysis indicate that the indices of modernization selected for this study are clustered around three pairs of reciprocal variables. These are:

Type I	Type II
<u>Mass media exposure</u> ¹	<u>Home innovativeness</u>
<u>Knowledgeability</u>	<u>Cosmopoliteness</u>
<u>Educational aspirations</u>	<u>Functional literacy</u>
<u>Occupational aspirations</u>	<u>Age</u>
Type III	
<u>Empathy</u>	
<u>Social status</u>	
<u>Achievement motivation</u>	
<u>Agricultural innovativeness</u>	
<u>Opinion leadership</u>	

However, when the same procedure was applied, this time using the next to the highest correlations, the 13 variables clustered together around one pair of reciprocal variables (see Figure 3). Type I links with Type III though mass media exposure and Type II links with Type I through home innovativeness. This secondary linkage analysis would indicate that even though the selected variables are separated into three types, there is an underlying unity to them.

Conclusions

1. Empathy is significantly correlated with functional literacy, mass media exposure, cosmopoliteness, innovativeness, achievement motivation, knowledgeability, opinionatedness, opinion leadership, and aspirations.

¹Underlined variables are reciprocal.

2. The social status of the respondents affects the relationship between empathy and the selected variables in this study except for functional literacy and educational aspirations. This shows that the strength of the relationship between empathy and the other variables is due in part to social status. However, age does not affect any of the relationships between empathy and the other variables in the present study.

3. Empathy is not an intervening variable in the relationships of modernization antecedents and consequences when functional literacy, mass media exposure, and cosmopolitaness are the antecedents, and innovativeness, achievement motivation, knowledgeability, opinionatedness, opinion leadership, and aspirations are the consequences.

4. According to the results of a multiple correlation analysis, the antecedent variable mass media exposure is the best predictor of empathy (23.1%). Functional literacy is next (6.7%) and cosmopolitaness last with a negligible amount (.1%). However, the predictive power of mass media exposure seems to be a function of social status as shown by the results of the part-correlation analysis ($r_{e(mm.ss)} = .335$; $r_{mm(e.ss)} = .040$).

Future Research

This investigation is suggestive of future research. The role of empathy in traditional cultures appears to be partly a function of the social status of the respondents. Perhaps our measure of empathy is confounded with social status.

Can we, in the light of the meager conditions peasants face in their everyday lives, expect them to be preoccupied with the feelings of

the other person and think "hypothetically" about others in their social system? This question is based in part on the social-psychological theory of the authoritarian personality, proposed by Stewart and Hoult (1959). They hypothesize that a person who is reared in a system which provides him with few opportunities to develop role-taking abilities is poorly equipped to handle new situations, and therefore is unable to take the roles of others in groups which are not his reference groups. Certainly, physical and social conditions in the villages in this study are not conducive to the development of empathy in their inhabitants. This is in direct support of the notions of Stewart and Hoult (1959).

There are also some methodological questions for future inquiry. Perhaps empathy is a multidimensional concept and we have treated it as unidimensional. On the other hand, empathy may be unidimensional and our scale has measured not only it, but also other variables which are closely related to empathy. So the question remains, is empathy truly a multidimensional concept?

It is also contended here that mass media exposure is not the variable with which empathy should be compared, but rather comprehension of the mass media content, for "exposure" to the mass media does not require empathic ability.

Since social status appears to have a definite influence in the lives of the peasants, its operationalization should be more careful, taking into account its possible multidimensionality.

Action Implications for the Change Agent

It has been emphasized many times in the literature that communication is more effective when it is receiver-oriented. Empathy could be

considered as the ability to be receiver-oriented. There is also receiver-empathy with source. If the receivers had empathy with the source, they would be better able to calculate the change agent's motives for change, and thus less change might result. On the other hand, when the change agent has very high empathy with his clients, he may become so like them (social-psychologically) that he may not wish to change them. This leads us to a hypothesis on the relationship between change agents and clients: As change agents and clients are less similar in attitudes and values, empathy is more difficult to attain, and so communication effects are minimized. Research evidence shows that the closer the change agent is to his clients, sociologically, the more effective he is.²

If this is true, the next problem that comes to mind is how to increase empathy in the change agent. Some general suggestions are offered:

- (1) The aphorism, "To be a leader you must first learn to follow," has relevance here. The more experience a change agent has had as a receiver, the better able he will be to induce change.
- (2) Knowledge and understanding of empathy would help the change agent to develop an empathic ability. Further, the change agent should also be given training in group dynamics and sensitivity training.
- (3) Efforts should be made to maximize feedback from the clients to the change agent, so as to increase empathy of the latter with the former.

²See, for example, Rahudkar (1962).

APPENDIX A
THE EMPATHY SCALE

The empathy questions will be followed by some typical answers and their respective scores.

A. If you were President of the Community Development Board, what would you do next year?

0.¹ Pedir ayuda (Ask for help²).

0. Yo no serviría por que no se leer ni escribir (I would not be useful because I don't know how to write nor read).

1. Buscar cooperación entre todos los habitantes (Ask for the cooperation among all the inhabitants).

2. Buscar el modo de mejorar mas la vereda por otra escuela, buscar un motor para luz por colaboración y prestamos, mejorar los caminos vecinales con colaboración de todos, buscar, atraerlos y que colaboren (One way to make this vereda better is through another school; we need to look for an electric power engine and buy it through loans; we need to build better roads around the vereda; we need to look for and attract the people so that they will cooperate).

2. Crearía una escuela nocturna para enseñanza agrícola (I would create a night school to teach agriculture).

¹0 represents low empathy, 2 is high empathy.

²Spanish transcribed verbatim. The English translations have been somewhat edited but an attempt has been made to preserve some of the flavor of the original answers.

- B. If you were the Extension Service agent in Facatativa, what would you do to improve the price of potatoes in this community?
- 0. Tomar medidas (Take some measures).
 - 0. Que quedára a precio comodo (Make them stay at a fair price).
 - 1. Ponerme en contacto con los agricultores (Get in touch with the farmers).
 - 2. Bajar el precio de la semilla y dar crédito para el abono (Lower the price of the seed and give credit for fertilizer).
- C. If you were Mayor of Facatativa, what would you do to obtain a better highway for the community?
- 0. Pedir a Bogotá (Ask Bogota).
 - 1. Hablar con el gobierno (Talk to the government).
 - 1. Hacer reuniones y pedir ayuda y progreso (Call meetings and ask for help and progress).
 - 2. Hacer una reunión y conseguir firmas para pedir ayuda al departamento de carreteras (Call a meeting and get signatures to ask the help of the road department).
- D. If you were Minister of Education, what would you do for the rural schools in Colombia?
- 0. Tomarle interes de que todos los niños estudien bien (Take interest in seeing that all the children study well).
 - 1. Hacer mas escuelas (Build more schools).
 - 1. Mejorar todas las escuelas y darle educación a todo (Improve all the schools and give education to all).
 - 2. Aumentar las escuelas y hacer carreteras para que los hijos vayan a la escuela (Build more schools and more roads for the children to go to school).

2. Ayudarles, ponerles nuevas orientaciones, nuevos maestros que aumentáran la educación hasta secundaria, mantenerlas en buen estado (Help the schools, give them a new orientation, new teachers to improve education and extend it to the secondary level; keep the schools in good condition).
- E. If you were President of the Republic, what would you do to fight against the bandit violence?
0. Pedir la Paz (Ask for peace).
 0. ¡Quien sabe! (Who knows!)
 1. Arroyar a los bandoleros para que no molesten (Trample the bandits so that they will not bother further).
 2. Educar al pueblo y darle el apoyo que necesite de acuerdo a la situación en que vive en las zonas de violencia (Educate the people and give them help according to their needs in the zones of violence).
 2. Calmarlos con las fuerzas armadas (Calm them with the armed forces).

Criteria for Scoring
the Scale Item Responses

0. Low empathy; no answer or answer completely unrelated to question.
1. Medium empathy; a general, non-specific answer but with some relevance to the question.
2. High empathy; specific and relevant answer showing ability to take the role.

APPENDIX B

CROSS-CULTURAL COMPARISONS

Validity for the present findings can be provided by a cross-cultural comparison. This was accomplished by re-analyzing data from six Middle East countries and from eight villages in India.

Five variables were used: empathy, cosmopolitaness, functional literacy, mass media exposure, and social status, with empathy as the dependent variable. The measurement of all the variables including empathy, was similar to that of our Colombian study.

Zero-order correlations and McQuitty elementary linkage analyses were performed.

The data from the Middle East countries are Lerner's (1958, pp. 438-446). A controlled sample of 1,357 respondents, which included rural and urban inhabitants, were interviewed in Turkey, Lebanon, Jordan, Egypt, Syria, and Iran. These data were originally scored dichotomously as "plus" and "minus," so it was necessary to punch one card for each of the 1,357 respondents with a "1" for a plus and "0" for a minus.

The data from India are part of the India-Unesco study of 702 peasants living in eight villages in North-Central India (U.P. State). These data were gathered in 1964 by the government of India's National Institute of Community Development.

Table 5 presents the zero-order correlations between empathy and the other variables. It should be noted that all correlations are significantly different from zero at the one per cent level. In general, the relationship between empathy and cosmopolitaness is the weakest of the correlations in all three studies. On the other hand, correlations

of empathy and social status were highest in all three settings.

Thus, the data from India and the Middle East countries support the present study's general hypotheses that empathy varies directly with mass media exposure, functional literacy, and cosmopolitaness.

Table 5. Zero-order correlations between empathy and selected variables from three studies in different areas of the world

Independent Variables	Zero-order Correlations with Empathy Scores		
	Colombia	India	Middle East
Functional Literacy	.363	.323	.340
Mass Media Exposure	.520	.334	.278
Cosmopolitaness	.382	.083	.166
Social Status	.595	.392	.276

The results of the linkage analysis performed for each study are presented in Figure 4. In each study, the five variables are linked together in a single chain of relationships. In the India and in the Middle East studies, social status and literacy are the reciprocal pair of variables, while in the Colombia study empathy is reciprocal with social status. This would substantiate the contention that social status plays an important role in the modernization of traditional cultures.

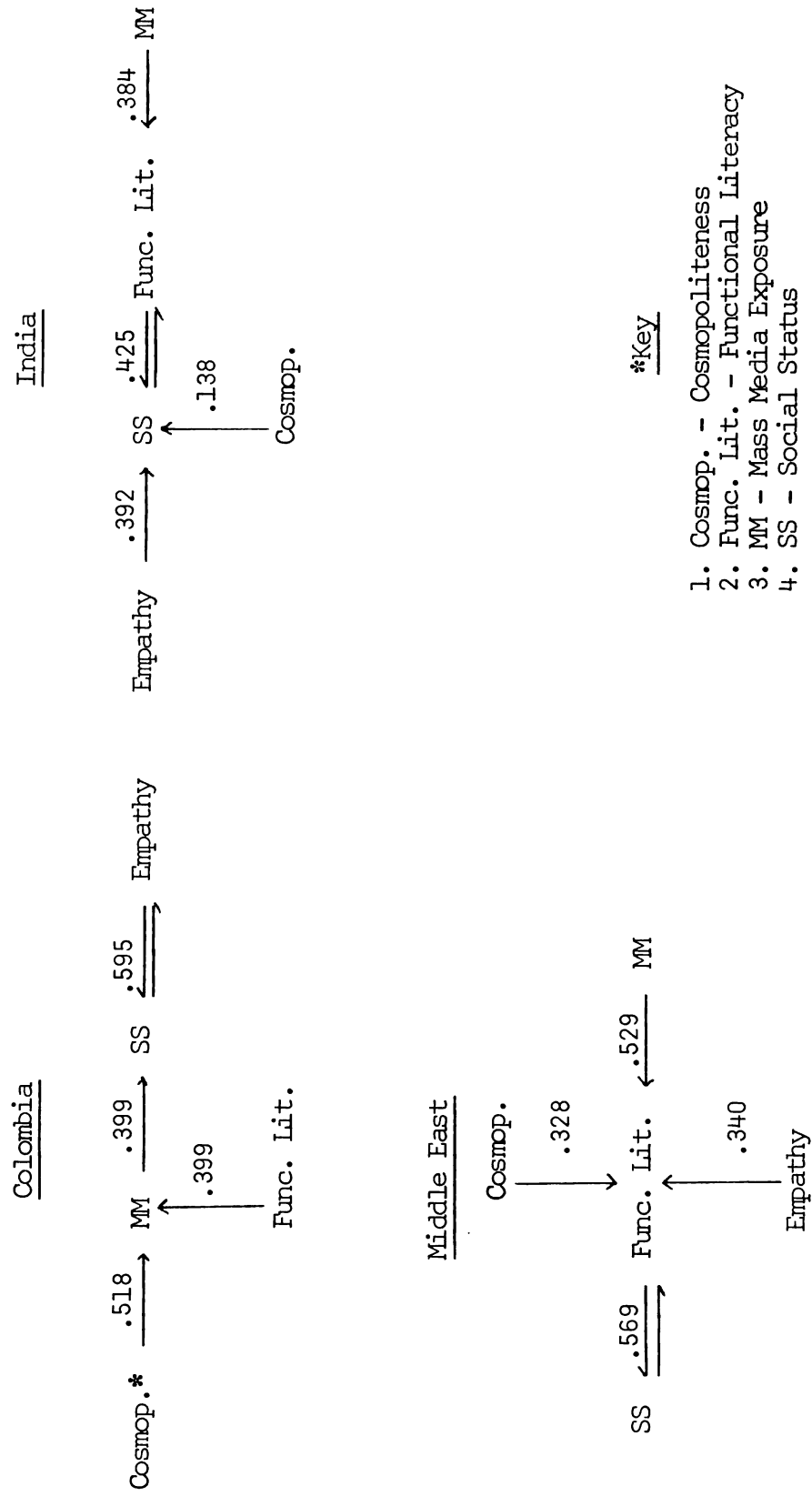


Figure 4. Cluster Analysis of Empathy and Four Correlates in Three Traditional Settings.

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