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INTERPERSONAL TRUST AND MODERNIZATION IN RURAL BRAZIL

By

J. David Stanfield

Technical Report 9

Project on the Diffusion of Innovations in Rural Societies

A Research Project Funded by the United States Agency for International Development

November, 1968

Department of Communication
Michigan State University
East Lansing, Michigan

FOREWARD

This publication is one in a series of technical reports dealing with the diffusion of innovations in Brazil, Nigeria, and India. They describe research results from a U.S. Agency for International Development--sponsored research project, conducted by the Department of Communication at Michigan State University. These technical reports are published only in a very limited number of copies because they are aimed primarily for a scientific audience.

In the present monograph, Dr. Stanfield seeks to trace the complex role of interpersonal trust in the modernization of Brazilian villagers. This report contains the rather personal chronicle of how David Stanfield proceeded from the initial conception of this research problem, through his experimental study of interpersonal trust among U.S. college students, followed by his immersion in the study of trust among Brazilian peasants and his initially discouraging research results, ending in the present analysis of the Brazilian data, which illustrates his dilligence and ingenuity in re-conceptualizing the role of trust in modernization. These final results give one the general impression that the role of interpersonal trust in the modernization process is anything but direct and simple. Rather, trust in <u>certain others</u> (rather than in "generalized others") does seem to be an ingredient in modernization. But even then, it appears that whether the <u>object of trust</u> is localite or cosmopolite makes a great deal of difference in whether such types of trust are related to indicants of modernization. So perhaps, as in

the case with many researchers, one of the greatest contributions of the present study is the new viewpoints, typologies, and measurements that Dave Stanfield evolves.

The present report closely parallels the author's Ph.D. dissertation, which was based mainly on data from the Brazilian branch of the three-country Diffusion Project. The author was associated with this Project since its inception, and served as its Country Leader in Brazil for its third phase. Thus, he is well-acquainted with the peasant respondents whose trust he analyzes in this report. He represents one of those communication researchers who will lead the assult in forging an international social science. And he, like his report, represents only a down payment on what will be a long range intellectual investment.

Everett M. Rogers
Professor of Communication
and Project Director

PREFACE

The Natural History of This Study

Stages in the Research

As is probably the case in any research, this study proceeded in several stages. Following preliminary work reviewing some of the existing studies and speculations concerning interpersonal trust and social change, our first attempt at data-gathering occurred in Michigan. This step was taken, despite the overall objective of studying the role of trust in the modernization of rural areas in underdeveloped countries, in order to see if a general trust of other people could be measured and if this variable is involved in behavior in any important way. The Michigan study was done in the spring of 1966 first by gathering data from college sophomores via a questionnaire containing various attitudinal items that we felt would be related to trust. The detailed results of a factor analysis of these data are presented in Appendix D; there appears to be a single, trust of others dimension. Some of these sophomores were then brought into the laboratory and subjected to an experiment designed to see if the "high trust" subjects differed from the "low trust" subjects for certain behavior patterns. Some differences were found (see Appendix D).

Encouraged by these findings, we prepared a proposal, and embarked in the fall of 1966 for Brazil to see how trust of others is involved in the process of peasant modernization. The main data-gathering in the field consisted of interviews with 1,307 farm operators. Four questions about trust of other people were included in the questionnaire;

these items were phrased quite generally along the line of those items developed in Michigan. The most specific item was one asking the respondent if he generally trusted his neighbors. The other items referred basically to trust of "other people in general."

Conversations with some farmers and a preliminary tabulation of the data from these questionnaires raised some doubts about the adequacy of our conceptualization of trust. The simple sum of the trust items yielded an index that usually correlated negatively with modernization variables such as innovativeness, mass media exposure and cosmopoliteness that we had hypothesized to be positively correlated with trust. On a hunch that different items may be functioning differently, we correlated the four trust items individually with the other variables, and found that the trust of neighbors item was yielding consistently negative correlations; the "general" trust items would sometimes correlate negatively and sometimes positively with variables, but always very slightly, if at all.

Following up this lead in a smaller data collection in the summer of 1967 using 315 farm operators or respondents, we included a couple of items relating to trust of individuals outside the immediate life of the community, such as trust of the extension agent and the interviewer himself. Interestingly enough, trust of these outsiders seemed to correlate positively with the indicants of modernization which had correlated negatively with trust of neighbors. These results are developed and discussed in Chapters II, III, and IV. Certainly finding the negative correlations with the trust of neighbor measure upset the initial rather routine expectation of simply calculating a series of correlations

to see if the theory as expressed in the original thesis proposal was supported or not. Instead of being led down this easy path, we were forced to reformulate the theoretical rationale and find our way along an essentially unmarked road that had not appeared on our theoretical map before the data were collected.

This reformulation, which began in earnest in the spring of 1968 and lasted through the summer of 1968, extended to a re-examination of the studies which assume a general trust in others and the positive correlation of this variable with various indices of what is generally called "modernization." We began to detect that many of these studies used an approach of comparing communities in less developed nations to communities in more developed countries, with the conclusion that the gap in development extends to a gap in trust; for the former to close, so must the latter. As development occurs, the distrust in less developed systems would disappear. No distinction was made in these studies between trust of neighbors and trust of outsiders; most of these studies report a general distrust of others, both neighbors and outsiders, in these less developed communities. The approach used in these studies we labeled absolutist to refer to their perception or assumption of an absolute gap in general trust between developed and underdeveloped societies, with the latter only needing to "add to" itself to reach the level of the former.

In contrast to this approach, we began to build what we call the immanent approach, which exhibits more cultural relativism than does the absolutist. The immanent approach does not logically require that trust operate any differently from the absolutist expectations; there is simply greater freedom in the immanent analysis for developing hypotheses about about the role of trust which flow from the nature of the society under

consideration. These two approaches are discussed in detail in Chapter I, and the two sets of competing hypotheses are the subject of Chapters II, III and IV.

Having two theoretical approaches to consider and develop certainly added complications to the thesis. The original research proposal which was absolutist in viewpoint turned out to be less than adequate when compared with the data, thereby necessitating the creation of an alternative viewpoint. However, such a situation is more theoretically interesting than a study where the hypotheses are all fairly cut and dried; at least the data analysis changes from a mechanical cranking out of correlations into a suspenseful and often surprising struggle with a large mass of initially unpredictable data. Having a written research proposal in hand before going into the field is certainly dangerous, but at the same time it alerts one to the phenomenon that should be crucial. If these factors turn out to be less than crucial or act in a completely different manner than expected, the theories from which the initial expectations were derived can only profit. Either the theories' limitations are demonstrated, or points where they should be reformulated come into view.

Use of Statistics in This Study

Since we use data to decide which of the two theoretical approaches is most fruitful, our method of linking the data to theory should be discussed. This link is constructed from various statistics, especially the correlation coefficient and the analysis of variance F test for differences among means. More specifically, we use statistical methods to link theory with data which derive from responses to a questionnaire. We correlate

the farmers' responses to one item with their responses to another item to see how the concepts these items measure are related.

Since one aspect of a good theory is its generality, we argue that any theoretical relationship should apply to various aspects of human behavior. Following this general mandate, we typically derive several indices for a given theoretical concept. Since we are centrally interested in trust, we also derive several indices of trust of others. This approach demands that we also use several statistical methods to test for relationships between the trust items and other variables; typically a number of correlations are reported for each theoretical relationship.

This reporting of several correlation coefficients demands that we have some procedure for saying that there is a relationship in general or not. To meet this requirement, we observe "patterns" of relationships as indicated by the various correlations or averages. By "pattern" we mean that out of a set of correlations, <u>most</u> are positive or negative, and those which are statistically significant (different from zero), in the main support or negate theoretical expectations.

Analysis of patterns of relationships in this sense is of particular importance when using data from field studies such as ours, which typically exhibit relatively low correlations. Unreliable measures (see Appendix B), varying quality of interviewers, inherent instability of the phenomenon under study, and other factors influence the size of a correlation, given that a relationship between the variables does in fact exist. The resulting low correlations between variables force the researcher to look at a series of these slight indicants of relationship

the .05 level of statistical significance. Where all .05 level correlations are positive (or negative), we conclude that the pattern supports the hypothesis of a positive (or negative) relationship between the concepts under consideration. If some of the .05 level correlations are positive and some are negative, we look at the relative frequency of each type and draw conclusions about the "bulk" of the correlations. This "mixed" situation certainly requires that conclusions be more tentative than in the case of all the .05 correlations being positive or negative.

The situation from which this study evolved demonstrates the interconnections between theory building and statistical manipulations of data. In our case the actual hypotheses radically changed their form when faced with data. The theoretical reasoning, although initially off base, still focused the study on variables that turned out to be important to understanding where the theory went wrong and why. The following chapters show how this struggle evolved and what conclusions could be reached, given limitations on the theory and on the data.

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CHAPTER I

INTRODUCTION

Simmel once observed that "confidence . . . is one of the most important synthetic forces within society" (1950, p. 318). Confidence, or trust, binds individuals together and integrates society, since it is a belief in the good intentions of other people, or at least a belief that interactions with others will not bring harm. With such a belief prevalent in a society, interpersonal interactions presumably flow smoother, without the conflict that might tear the society apart. By contrast, in a society where distrust is prevalent, individuals view others with suspicion, thereby creating an oftentimes unbridgeable gulf between individuals in terms of their mutual communication and interaction.

These observations, which almost form a series of hypotheses about societies, provide the flavor of the general rationale for this study. Somewhat more specifically, the study attempts to examine how the bonds of interpersonal trust are involved in the process of social change, and how these bonds react to change and influence it.

Several authors have speculated on the importance of trust to the process of social change called development, when dealing with social groups, and modernization when dealing with individuals.[1]

---

[1]Development of societies is usually described as some increase in the productivity of labor, the standard of living or some change in the organization of production and distribution (Furtado, 1964, p. 1; and Gill, 1963, Chapter I); modernization of individuals is reflective of the broad social changes occurring in development and is basically a change from traditional life ways to new customs more congruent with the new society (Rogers with Svenning, 1968).

Speculations about the role of trust in development revolve around the notion of trust as an integrative force in society. Pye (1962) argues that if trust, or the associational sentiment, declines, then the very process of development may be retarded; some basis for cooperation must exist for development to occur.[1] Leighton (1963) argues that the psychological state of distrust, if present on a large scale in a society, may stimulate individual disintegration in the form of mental illness. Fromm (1941) presents the idea that societal disintegration may encourage the installation of an authoritarian regime to end the disintegration and restore order wherein trust can again be built.

While this study does not directly deal with these broad issues, we assume that the existence of trust is an important condition for "healthy" and "democratic" development to occur. In an effort to study the role of trust in development and the reciprocal effect of one on the other, this study moves from the society as a whole to an examination of individuals and of the communities where individuals reside. In particular, we have selected rural communities as the focus of study in the hope that they reflect a distinct social entity somewhat isolated from the modern urban areas but at the same time struggling to "develop" to the "modern" life exemplified by the urban areas.

Research dealing with farmers and rural communities which discusses interpersonal trust usually touches two trust themes: (1) Hickey (1964) exemplifies one theme in his observation that mutual distrust on the part

---

[1]Almond and Verba (1963) also argue in this manner, to a certain extent.

of the farmers is an important block to the existence of cooperative efforts; (2) Dube (1958) exemplifies the second trust theme in his feeling that the farmers' distrust of the government is an important block in the government's efforts to introduce change into rural areas; while a large part of governmental change programs is directed at stimulating community development, rural villagers see these changes as possibly threatening to them and their way of life. Thus, trust or its negative, distrust, is apparently important as a factor influencing mutual cooperation and the creation and maintenance of community level self-help organizations.

In an effort to study the role of the trust or distrust sentiment in rural development, 20 rural communities in the state of Minas Gerais, Brazil were chosen. To facilitate the study of community development and the modernization of individuals within these communities, some change should be occurring and have occurred in the recent past. As a result of this criteria, the 20 communities of our sample are ones in which the state extension service has worked over a period of years, and, therefore, should have experienced some input of innovations if the extension service has had any effect. Moreover, these communities come from various parts of the state and reflect various levels of development; certainly individuals within these communities differ in terms of their acceptance of the new, modern way of life. Thus, this sample of developing communities and modernizing individuals should provide a suitable setting in which trust and change can be examined.

While the overall goal of this study is the examination of trust in a context of development and modernization, we link these variables with the concepts of communication. On the one hand, there are the

various media of communication from the outside world into the rural community that funnel innovations and new customs into the community. On the other hand, the cooperation of individuals with one another and the influence of one by another in the process of implementing modern customs requires that interpersonal communication occurs. The purposes of the present study then, are threefold: (1) to examine interpersonal trust in rural, less developed areas as an indicant of social integration; (2) to define and examine exposure to the interpersonal and mass media of communication in this setting; and (3) to see how interpersonal trust and communication are related to the process of individual modernization and community development.

Definition of Interpersonal Trust

Since the concept of interpersonal trust is central to this study, some effort at a strict definition of the concept is in order. Trust is fundamentally an expectation on the part of some individual that another person or group will usually be helpful to him. Conversely, distrust is the expectation of usually harmful behavior from an individual or group. There are essentially four elements involved in this definition of interpersonal trust: (1) the individual that exhibits the sentiment called trust; (2) the object of that feeling, the individual or group that is trusted; (3) the expectation of reward or punishment expressed above as helpful or harmful behavior; and (4) the degree of conviction with which this expectation is held, expressed by use of the term "usually" in the definition. We say that individual A trusts individual B when A is fairly certain in his expectation that B will act in a helpful or rewarding fashion toward A.

In the interpersonal situation which we have described, trust of the other person or group can take on many values in a coherent fashion; that is, there may be a high level of trust of the other person, a medium level or a low level. Figure 1 illustrates this continuum of trust in terms of the definition offered. An individual's position on the continuum from trust to distrust of another

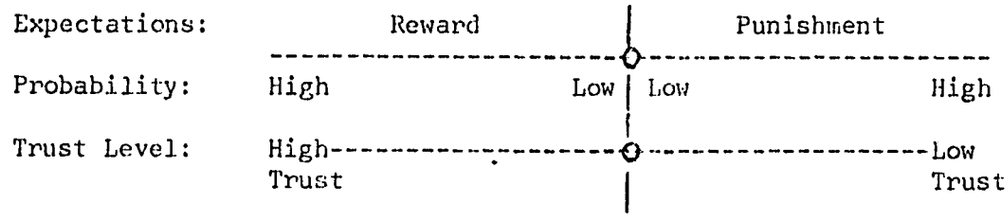

Figure 1: The Continuum of Trust

person is determined by the quality of the expectation and by the level of probability of that expectation.

There are two distinct qualities involved in this definition, one reward and the other punishment. The expectation of reward indicates trust, while the expectation of punishment indicates distrust. We have proposed that the two qualities lie among a single dimension, that one is the mirror reflection of the other. However, there may be a non-linear break at the zero point which would allow the sentiment of distrust to be something different than the opposite of trust. Such a possibility will not be explored in this study, but should be kept in mind in future applications of the concept of trust. We will assume that trust is the simple negation of distrust in terms of the continuum

outlined above in order to simplify the analysis.

The definition of trust also involves a probability judgment of the quality of an interaction's outcome. A person who says one thing and does another would be less consistent than a person for whom utterances and behaviors are comparable. Thus, since consistency of behavior effects the probability estimate, consistency would affect trust. This point is emphasized to Erickson's (1959) definition of trust where consistency or sameness is central to trust. Our definition goes beyond this concept of sameness or continuity, however, by including the quality of this continuity in the definition. The elements of behavior that can be consistent or inconsistent are at least three: (1) interior motivations; (2) verbal pronouncement and (3) non-verbal behavior or activity. The consistency of these three elements, as considered in pairs or conjunctively, indicates whether a given behavior is probable or not, and thereby influences the judgment of whether the author of these elements is trustworthy or not.

These distinctions aid in constructing measures of trust that can be used in a questionnaire, which is the medium used for the collection of data in this study. Examples of questions might be "People break their promises as often as they keep them," or "By and large you can depend on people to do what they say they'll do," or "If you don't watch yourself, people will take advantage of you." Each of these items express an expectation and some judgment about the probability of that expectation occurring.

In our study of Brazilian farmers, we are dealing with individuals and their trust of other individuals or groups. For example,

an important figure in the rural change process is the extension agent; he is a trusted or distrusted source of information about agriculture. For the farmers, the extension agent is an individual object of trust. The government, on the other hand, is a composite of many individuals and symbols, so that if we should deal with governmental sponsored change programs, the government becomes a group object of trust. Both the extension agent and government, however, are objects of trust which exist outside the community, beyond the borders of the farmer's reference group. Individuals within the community, neighbors, friends, and family, would be individual or group objects of trust within or close to the farmer's reference group. This distinction between "inside" and "outside" trust objects assumes importance in later chapters.

Controversy over the Nature of Interpersonal Relationships in Rural Communities

Since this study is concerned with the quality of interpersonal relationships in rural communities as reflected by interpersonal trust, some word on the different approaches to describing rural interpersonal relationships is in order. We have adopted the term "farmer" to describe our respondents. There are a number of studies of rural areas of less developed countries that use the word "peasant" to describe a similar type of individual. A farmer is a person who is, perhaps, more oriented to economic participation in the life of the nation, while a "peasant" refers more to an individual who may till the land but who lives at the subsistence level, producing little or nothing for sale in the market. Our study deals with both types of individuals, farmers and peasants, with the distinction being blurred for the great majority of

those interviewed. The observations of those authors who have studied peasant societies should be applicable to our discussion of interpersonal trust in this similar setting.

There appears to be some difference of opinion, however, about the nature of interpersonal relationships in rural, underdeveloped communities. Some theorists have a view of traditional peasant life as unified, integrated, cooperative and trustful, while others view the social relations of peasants as divisive, disintegrated, conflictful and suspicious in terms of one individual's view of another. Determining which view of peasant life is correct has serious implications for development efforts. If interpersonal relationships are trustful, development may upset the situation and introduce conflict. On the other hand if the nature of traditional society is inherently conflictful, development might change this situation and bring about more integration and mutual trust.

The dispute about the nature of interpersonal relationships in rural communities has had a long and bitter history. Hobbes in 1651 felt that in the "state of nature," which was closely approximated by the so-called savage societies without the benefits of civilization, "every man [was] enemy to every man . . . and the life of man, solitary, poor, nasty, brutish, and short" (Hobbes, 1953, p. 346). A century or so later Rousseau countered Hobbes' judgment with the observation that "civilization is disruptive, and that compassion is a natural feeling, which by moderating the violence of love of self in each individual, contributes to the preservation of the whole species" (Rousseau, 1950, p. 226). The same argument reappears a century later when Marx postu-

lated that "man is . . . a social animal" (Marx, 1906, p. 358) and that capitalism destroyed the social bonds that existed in earlier rural systems. The social Darwinists countered this hopeful sentiment with the idea that any existence is a struggle most of the time where "constraint, anxiety, possible tyranny and repression, mark social relations" (Sumner, 1952, p. 14).

About 1900, Kropotkin (1955, p. xiii and xiv) counterattacked the social Darwinist sentiment by arguing:

> Love, sympathy and self sacrifice certainly play an immense part in the progressive development of our moral feelings. But it is not love and not even sympathy upon which society is based in mankind. It is the conscience . . . of human solidarity. It is the unconscious recognition of the force that is borrowed by each man from the practice of mutual aid; of the close dependency of everyone's happiness upon the happiness of all . . . .

Kropotkin presents an extensive series of empirical studies of an anthropological nature to support his argument of the prevalence of mutual aid in society, especially among the "savages," who probably approximate what are called "peasants" today. In one instance Kropotkin (1955, p. 91) quotes a study that found an African tribe to be "certainly the most friendly, the most liberal and the most benevolent people to one another that ever appeared on earth."

In Mutual Aid, Kropotkin presents many arguments supporting the general notion of the prevalence of mutual aid and cooperation in both human and animal society, rather than the grim war of each against all and the survival of the fittest. His arguments are comparative both in the historical and correlational sense; that is, he compares one tribe or human group with itself at different historical stages

showing how at each stage, at least until the time in which Kropotkin lived, the instinct for mutual aid and cooperation was the guiding principle of man's social life. He also presents comparative data on several "primitive" African and American tribes gathered in the late 1800's to prove this same point, which is the correlational approach as distinguished from the historical approach.

In the German school of sociology, theorizing about interpersonal relationships continues, but with the comparison of societies accomplished through the use of "ideal types." Tönnies, influenced somewhat by Marx, wrote of two opposing societal types, Gemeinschaft or community, and Gesellschaft or society. Tönnies (1957, p. 249) states that "natural will" predominates in Gemeinschaft while "rational will" guides Gesellschaft. Natural will refers to a spontaneous, emotional motivation, whereas rational will is more calculating in terms of ends and means and has a distinctly economic cast.

> . . . natural will means nothing more than a direct, naive and therefore emotional volition and action, whereas, on the other hand, rational will is most frequently characterized by consciousness. To the latter belongs manufacturing as contrasted with creation; therefore, we speak of mechanical work . . . referring to forging plans, machinations, weaving intrigues or fabrications which are directed to the objective to bring forth the means, exclusive determination of which is that of producing the outward effects necessary to attain our desired ends.

Tönnies would probably argue that peasant societies exemplify the Gemeinschaft or community type, and the modern industrial societies are more of the Gesellschaft or urban type. Thus, Tönnies is able to describe a given human group in terms of how much of one or the other abstract type they exhibit. In effect, he attempts to construct a theoretical ruler against which one can measure various human societies

at any point in human history. This ruler could be applied both historically and correlationally. Tönnies did both, especially the former, since he felt that the historical trend is from Gemeinschaft to Gesellschaft. We note the similarity of this argument to the sentiment that Kropotkin expressed of the unified, cooperating, noble savage compared with the disintegrating, conflictful modern world.

In 1930 Redfied published his work dealing with the community Tepoztlan in which he began to articulate his notions of the folk-urban continuum (much under the influence of Tönnies and Durkheim). Redfield describes the interpersonal relations of Tepoztlan as being integrated and well-adjusted, ideas which he later incorporated into his general definition of a folk society as being "small, homogeneous, and integrated" (Redfield, 1947, p. 293, and 1960, p. 144).

In Redfield's conception of folk society, we still find traces of the "noble savage" that graced the pages of Mutual Aid and seemed to be part of Tönnies' Gemeinschaft and Marx's ideal communist society. Clearly, the interpersonal relationships in modern society tend to be less unified, more solitary, more divisive, and more exploitative in the theories of Marx, Kropotkin, Tönnies and Redfield than in traditional, rural society.

This idealization of rural society has long been criticized. Lovejoy and Boas (1935) trace the idea they called "primitivism," that is, the idealization of primitive rural life, in various social theories. Van Doren (1967) examines the notion of progress and those who deny that any progress has occurred in human history, especially in its recent industrial phase. Caro Baroja (1963) comments on the general rural bias

of many theorists and commentators on the nature and evolution of society.

The predominant argument today basically seems to accept these criticisms of the idealization of rural life, and take the opposite tack of saying that peasant life is "solitary, poor, nasty, brutish, and short." Given this situation, "development" of these underdeveloped peoples is both necessary and commendable. Lewis, for example, returned to the very community in which Redfield originally found "a relatively homogeneous, isolated, smoothly functioning, and well-integrated society made up of contented and well-adjusted people" (Lewis, 1951, p. 428), and formed an entirely different set of impressions. "Our findings . . . emphasize the underlying individualism of Tepoztecan institutions and character, the lack of cooperation, the tensions between villages within the municipio, the schisms within the village, and the pervading quality of fear, envy, and distrust in interpersonal relations (Lewis, 1951, p. 429). On another continent Carstairs (1958, p. 40) constantly felt the deep distrust the Indian villagers had for one another: "From the beginning to the end of my stay, my notebooks record instances of suspicion and mutual distrust." The Reichel-Dolmatoffs (1961, p. 442) found that for the peasants in their Andean community, "All human motivations are believed to be essentially suspicious, and cooperation is never based on mutual confidence, trust or affection. On the contrary, every individual expects the worst from his fellow men, be they his brothers, parents or children." Lopreato (1962) in a rural community in southern Italy found the peasants mutually suspicious and distrustful, while Banfield (1958)--again in Italy--found essentially the same phenomenon with only the immediate family sometimes escaping the distrustful rejection of others.

The picture these authors paint of the "noble savage" is quite different from that presented earlier by men like Tönnies, Kropotkin and even Redfield. To an extent these differences could be a result of the observers' own culture and the distrust that meets them upon arrival in a rural community. More probable, however, is a combination of this "cultural shock" with the lack of any explicitly stated comparison points, either in terms of Tönnies (or other) ideal types or other existing groups such as in the case of Kropotkin. Lewis, for example, is shocked by the suspicion and distrust in Tepoztlan, but he does not have any explicit object against which he is comparing the community in question. Foster (1965) who finds suspicion and distrust in a Mexican community, Tzintzuntzan, also has no comparison point other than some notion of the noble savage expressed by the primitivists which he felt to be in error. The Carstairs studied only one community, as did the Richel-Dlmatoffs. Lopreato and Banfield also restricted themselves to single villages in southern Italy.[1]

Since these authors were so impressed with the suspicion and distrust in the community they studied, the contrast between the community and the life to which they were accustomed probably was large. This gulf, one is tempted to think, leads to a comparison of the "backward" community and the authors' home country, usually Europe or the United States. However, none of these authors present comparable data on their

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[1]We posit that within a society, rural communities may differ in the degree to which trust exists. One author may do research in a relatively trusting community and another may gather data in a distrustful one. The pitfalls of generalizing from a sample of one are apparent.

home country with which they might contrast their findings about peasant society. Their implicit and often explicit conclusion, then, is that in an industrial society there is a great deal more mutual trust and co-operation than in the underdeveloped society.

Such a conclusion derives from the differences they observe or feel between their industrialized and developed society and the peasant's underdeveloped one.

The errors in this procedure arise from the application of this conclusion to underdeveloped areas with the argument that once development occurs, distrust will disappear and mutual trust take its place. The process of development from peasant society to industrialization, however, may actually operate quite differently. The apparent suspicion and distrust that exist in peasant groups might be further aggravated by far-reaching changes in the society so that anxieties and suspicions might actually be increased as development occurs. Such a disintegration would exist until change is incorporated and increased organization is reflected in the ritualization of trust, as may well be the case in developed societies.

On this point, Tönnies would add a distinction between an emotional distrust and a rational one. He would argue that both types can exist simultaneously, but the latter is reduced the more behavior is regulated and roles established. To the extent that a society is disrupted by violent change and therefore not subject to this regulation, distrust would increase over its previous level, at least in the short run.

Differences in Absolutist and Immanent Expectations

In essence, the difference in theoretical approach we are trying to locate lies between an "immanent" or historical analysis of development and an absolute or correlational one. By immanent we refer to an analysis of society itself as it changes over time, without standards from another society being applied. By an absolutist analysis, we identify those analyses that express development in terms of those societies which are already developed. Immanent analysis would allow the possibility that trust and integration with others might actually decrease over a period of great disruptions for a given society. Absolutist analysis would look at the existing differences between underdeveloped and developed nations and then plot the path of the former in terms of what they lack to reach the level of the latter. Absolutist analysis would then say that, since in absolute terms the trust levels are higher in developed than underdeveloped societies, the process of development will result in a linear increase of these trust levels in underdeveloped areas.

This same line of reasoning would operate on the individual level of analysis where profiles of the modern and traditional individual are drawn. If we look at the "modernization" of a single individual over time, by definition we expect to see certain changes in him. The absolute approach would compare the profiles of the modern and traditional person to see what has to change in the latter to make him more like the former. The immanent line of reasoning would say that there may be stages through which the individual must pass in which the profiles are radically different. In this view, there may not be a linear change

from traditional to modern even assuming that one can define these personality types. The problem for the immanent theory is to outline possible stages and non-linear outcomes, and under what conditions they might occur.

Since this study is centrally concerned with interpersonal trust, we will attempt to outline both the absolutist and immanent expectations about the correlates of interpersonal trust in a developmental setting and explore the possibility of development stages or non-linearity.

The author must admit initial absolutist leanings before departing for the field research, so that the initial expectations for this study as to the relationships of interpersonal trust with other variables were absolutist in tone. The need for an alternative theoretical approach became apparent with field experience and preliminary data analyses. Our goal is to see how well or badly the post hoc immanent theoretical alternative, which is not overly common in theories today, compares with the more common absolutist approach.

Trust of "Insiders" and "Outsiders"

In this study, a distinction is made between those objects of trust that lie within the community and those objects that lie outside the boundaries of the community. What we call the absolutist approach to peasant society ignores this distinction and argues that as the individual becomes more modern, he will develop a general trust of others, irrespective of their location on this insider-outsider continuum. The immanent approach would allow the possibility of a traditional person, living in an isolated community, to trust most of

the other people in the community. He may well be forced to trust his neighbors, since there is no other way to operate in that context, no other alternatives in day-to-day interactions. In contrast, a more modern person in the less isolated community would have more contact outside the community, and may have alternative modes of interactions. This modern individual would be more willing to entertain distrust of those within the community than would the traditional individual. Therefore, the immanent theory would argue that at least in the short run, trust of others within the community may actually decrease as the person becomes more aware of the modern world and even as he participates in that world and the organizations that structure it.

The remaining chapters will explore these notions in detail. Chapter II examines various means by which an individual exposes himself to the outside world, and how this exposure is reflected in his trust of his peers. Chapter III specifically explores the mass media as possible channels for cosmopolite influences and stimulation for the creation of interpersonal distrust of others within the community. Chapter IV examines how cosmpolite communication factors affect trust of people from outside the community in contrast to trust of insiders. Chapter V divides the respondents into four trusting types, depending on trust of insiders and trust of outsiders, and discusses how these four types differ from one another. Chapter VI discusses how trust of an individual object of trust, the local ACAR supervisor, is correlated with the other variables. Finally, Chapter VII explores community levels of trust and how this variable is related to community development and community cosmopoliteness.

Sources of Data for this Study

The data used to test the various statements of relationships between variables come from three sources. First, before departing from the U.S. to do the field work in Brazil, a study was done utilizing sophomores in an introductory class in Communication. This study focused on how a general trust orientation affects two-person interaction (see Appendix D). A second source of data is 1,307 personal interviews with farmers in the 20 rural communities in Brazil. This set of data will be referred to as "Phase II," since it was part of an ongoing study under the auspices of the Agency for International Development. The third set of data comes from interviews with 315 of these 1,307 Phase II farmers one year following the first interview. This third set of data will be referred to as "Phase 2.5" to distinguish it from the earlier phase of the Project as well as from later ones. The methodologies followed in each of these data collections are presented in more detail in Appendix A.

CHAPTER II

THE LOCALITE-COSMOPOLITE CONTINUUM AND TRUST

General Rationales Relating Trust and the Localite-Cosmopolite Continuum

When Merton (1957) discussed the impact of cosmopoliteness and localiteness on community influence patterns and change, he was particularly interested in the differences between local and cosmopolitan leaders in a suburban town in the eastern United States. Merton's notions derive from Tönnies' distinctions between Gemeinschaft (local) and Gesellschaft (cosmopolite). The local type is an individual with a predominant orientation toward the town or community while the cosmopolitan exhibits a predominant orientation toward the world outside the town or community.

In the study of social change in rural areas, these notions assume particular importance because the origin of change is generally outside the community in "municipios" or towns, or the central government. This is not to say that internal change cannot spontaneously occur, rather that the force for change usually bears on the community from the outside. Redfield (1930), among others, builds the importance of the rural-urban continuum partly around the differences between urban and rural life and the forces that the city way of life exerts on the rural areas. If we posit an interest in the change process, a study of the cosmopolite influences on rural life is crucial because of the changes they seem to induce in this life. Localite forces tend to act oppositely

by tying the individual to the community, narrowing his vision to his immediate surroundings and discouraging acceptance of change which arises from beyond the borders of the community.

We suggested in the previous chapter that interpersonal trust may be relevant to this cosmopolite-localite dimension. In the case of an individual who is highly oriented to the community, who perceives his life as centered there, it is probable that he would respond affirmatively to a question about his trust of others within the community. The reasons for this response, beyond the general argument about his ties to the community, may revolve around the number of alternatives that he perceives. In his daily interactions with people in the community, he has to be careful to maintain at least a low level of hostility, since he has no other alternatives to life in the community. Foster (1965), Lewis (1951) and Reichel-Dolmatoffs (1961), among others, report the careful manner in which interpersonal relationships are conducted in rural communities in order to avoid conflict and hostility. The borderlines existence of many rural people make this desire for the avoidance of conflict even more important, since such conflict could deny them aid and support they need. Thus, the forces on the individual to maintain trusting (or at least avoid distrusting) relationships in some manner are probably strong, especially in isolated communities, and especially for those people who view the community as central in their lives.

If such is the case, we might expect trust to be more characteristic of traditional people in rural communities and more evident in the more isolated and less developed communities. In contrast, for those individuals who have more resources and are more exposed to life outside the community (and the attractions of that life), there are more possibilities for re-organizing one's life. Absolute reliance on the community does not restrain such individuals as much from expressing their hostilities and distrust within the community. At the same time, these increased alternatives might bring increased uncertainty and anxieties about how life should be lived, what aspects of the outside world should be adopted, which are good and which bad. Pye (1962), Erickson (1954), and Ammar (1954), for example, caution against the possible side-effects of rapid change on general anxiety levels in the population. If such is the case, the reduced necessity for interpersonal trust within the community is complimented by an increased anxiety about life in the community, also contributing to a decrease in trusting relationships.

This preceding rationale we have labled "immanent" to signify an analysis from within the community using standards relevant only to the society in question. This approach would account for negative correlations between trust and cosmopolite characteristics of respondents since increased cosmopoliteness could lead to decreased interpersonal trust. However, there are alternative theories that would tend to predict oppositely. One line of reasoning offered by Stewart and Hoult (1959), seems to hypothesize a positive relationship between trust and cosmopolite variables, and derives from an attempt to explain the formation of the "authoritarian personality".

Steward and Hoult (1359) in their critique of the research and theory in The Authoritarian Personality by Adorno and others (1950) direct attention to a variable they feel is an underlying factor in the development of an authoritarian personality--the number of social roles an individual has mastered. Stewart and Hoult make a distinction between role-playing and role-taking. Role-playing is overt behavior associated with a given position. Role-taking is "a cognitive process whereby a person imaginatively puts himself in the other's place, in order that he may get an insight into the other person's probable behavior in a given situation (Stewart and Hoult, 1959)." Role-playing and role-taking certainly interact, as the authors point out; experience with one enhances the ability to perform the other. The mastering of social roles involves an ability both to "role-play" and to "role-take" over a wide variety of roles.

The crucial step that the authors take is one of linking these two abilities with the social situation in which the individual lives. If this situation is one where the possibilities of developing extensive role-taking and role-playing abilities are restricted, a localite situation, the individual will develop a personality syndrome or set of interrelated variables the authors call authoritarianism. This same reasoning can be extended to saying that a restricted environment will lead to a generalized distrust of people, which may be thought of as part of the syndrome called the authoritarian personality (Adorno and others, 1950). Stewart and Hoult (1959), observe that the authoritarian is the person who, as a child, adolescent, and young adult:

> (a) is reared or lives in a social milieu which limits his perspective so that he has few opportunities to develop role-taking abilities; therefore, (b) he can play few roles and is poorly equipped for new role-taking and role playing; therefore, (c) he meets with a greater number of failures in playing new roles and hence tends to rely more and more upon the role which he feels is most acceptable to the reference group most important to him; therefore, (d) he is unable to take the role of others in groups which are not his reference groups; therefore, (e) he is unable to understand or sympathize with the members of the latter; and, therefore, (f) he tends to reject such groups, to feel hostility toward their members, and to rationalize his own failures by projecting blame on outgroups and their members.

Restricted role mastery during childhood and through young adulthood results in an inability to take new roles, which leads to failures when these new roles are encountered. This failure in turn leads to a tendency to reject "outgroups" (other than his reference groups), and in particular to a distrust of these outgroups and the roles involved. Conversely, in less restricted environments where the individual comes into contact with many roles early in life, he may be able to cope with relatively strange roles and may even come to trust the occupants of these roles.

In terms of our localite-cosmopolite distinctions outline previously, this line of reasoning would argue that a restricted, community-oriented life with few outside experiences, leads to a distrust of this unknown world. Although not completely within the logic of this argument, we can reverse the reasoning in order to state where <u>trust</u> might develop. Simply put, one can posit that <u>increased</u> experiences with the outside world should induce this trust.

At this point, we should specify the "objects of trust" which are under discussion. On the one hand there are the objects (people) that belong to the individual's reference group which are presumably individuals within the community. On the other hand, there are all those people and organizations that exist outside the community. Stewart and Hoult's rationale pertains particularly to the latter category, the people and groups exterior to the community. They argue that only through increased experiences with outside forces can individuals come to accept and trust them.

If we now think of a general trust of others which includes objects inside and outside the community, this theory would argue that there should be a general increase in trust of others as experiences with the outside world develop. Presumably one starts with trust of others in the community; with experience in the outside world, outsiders also come to be trusted. Thus, in a general sense, these arguments hypothesize a positive relationaship between a trust of both insiders and outsiders and cosmopoliteness. Where the data permit, we will examine the trust of the "outgroup", as well as trust of the "ingroup", i.e., people from the community.

Pertaining to trust of the ingroup or community, this line of reasoning really does not offer much insight other than a general expectation that the trust of this group should be greater than trust of outsiders. Therefore, we will construct some expectations from an approach more correctly labeled as "absolutist" which was discussed earlier. In general these notions revolve around differences between the traditional

and modern personality. The absolutist research design has the researcher going to peasant communities and collecting data on what strikes the observer as differentiating the peasant society from an industrialized one. One such difference we noted in much of this literature is the high level of distrust exhibited in peasant societies, presumably as compared with an industrialized one. Thus, the argument develops that the distrusting personality is a traditional one while the trusting personality is modern. Certainly this statement is an oversimplification of the absolutist approach, but the very simplicity of it has a certain appeal.

The next step is the comparison of this distrust-trust continuum with various other indicants of the traditional-modern continuum, such as organizational participation, education, literacy, political knowledge, and innovativeness (or a propensity to accept change). The general hypothesis is that as the person becomes more "modern", or at least becomes less "traditional", a general trust in others would also develop.

One problem appears at this point in the logic of the absolutist approach. These other indicants of traditionalism or modernity, such as organizational participation, education, and innovativeness are all characteristics of modernity. A person who <u>possesses</u> these characteristics is more "modern" than a person who does not. However, the locale of the study is usually a "traditional" society where a definition of traditionalism should be much easier to accomplish than a definition and measurement of modernity. Yet the actual measurement and ranking of the individuals takes the presence of a characteristic as an indication of modernity rather than its absence. In a setting where a traditional

personality presumably exists, the presence of modernity is measured. Where it is possible to define traditionalism it would seem preferable to actually measure it in terms of the degree of its presence and not arbitrarily define modernity in some ethnocentric manner and look for its presence in a traditional setting.

In a sense, what we are arguing in the present study is for the study of traditionalism rather than modernity, with departures from this traditionalism as an indicant of change, desirable or not. This change could then be evaluated and perhaps redirected into channels that are defined as desirable. The immanent theoretical approach begins with this objective of describing a traditional orientation. The argument is that the traditional personality exhibits a predominantly localite orientation and the trust of others within the community as an indicant of this orientation. Whereas Stewart and Hoult's notions could be stretched to argue for a positive relationship between trust and cosmopolite influences and whereas the absolutist approach also leads in this direction, the immanent approach hypothesizes a negative relationship between trust of others within the community and cosmopolite influences.

With this situation of directly opposing expectations, we are placed in a situation of not knowing exactly how the hypotheses around which this study is structured should be phrased.[1] With opposing

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[1]Such a dilemma has importance particularly for the hypothesis-testing procedure we will follow of stating a hypothesis, calculating the relevant statistics, and comparing the statistic with the hypothesis and chance expectations. If we choose one theoretical approach and posit a direction to the hypothesis, either positive or negative, a "one-tailed test" is appropriate, while if we are really unsure about the direction the relationship will take, a "two-tailed" test is more appropriate.

theoretical expectations concerning the direction of the relationships between trust and cosmopolite influences, the "uncertain" hypothesis is probably the best. Since this form is also the most conservative in a statistical sense, we should be more sure of any conclusions we reach. Finally, this approach allows us to choose which theoretical approach bears the sweetest fruit.

Localiteness and Trust of Peers: Hypotheses and Results

We have selected a series of cosmopolite influences that come to bear on the respondents in our sample and may act to alter their beliefs about the trustworthiness of others. We will first consider those influences from the outside that take the form of essentially interpersonal communication, and then examine mass or mediated communication variables.

Pertaining to the measurement of trust, the actual wording of the four trust items from Phase II is the following:

1. "What do you consider best when it comes to dealing with your neighbors: trust, or trust...distrustingly?"
2. "Do you think that the majority of men are naturally dishonest or honest?"
3. "One can trust the majority of people (agree or disagree)".
4. "When you really need other people, you find out that nobody is willing to help (agree or disagree)".

The four items appear to be interrelated, although the correlations are not overly high.[1] The first two items are relatively interrelated.

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[1]We will speak of "significance" in this study, even though no random sampling of a specified population occurred. The purpose of this procedure is to use statistical criteria to help distinguish a high from a low correlation, and not to test hypotheses rigorously.

Table 1 shows the intercorrelations of these four items.

Table 1: Intercorrelations of Four Trust Items

		Items		
		2	3	4
	1	.305[b]	.180[b]	.064[a]
Items	2		.288[a]	.078[a]
	3			.117[b]

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

The first item is phrased as trust of one's neighbors; the second, while more generally phrased, immediately followed the first in the questionnaire and was probably interpreted similarly by the respondents as referring to neighbors. The other two items refer to people in general and came much later in the questionnaire. The relative reliability of the four items are reported in Appendix B, which shows the first item, trust of neighbors, to be relatively reliable compared to the other attitudinal questions.

Residence Outside the Community

The immanent approach would argue that the mere fact of having migrated to the community indicates that the individual has brought some outside orientations with him. Such a person would have divided loyalties

between the community where he presently resides and the place (or places) he has lived before. The pull of the community on such an individual would not be as strong as for a person who has lived in the community all his life. The immanent argument would have a negative correlation between the fact of having resided outside the community and trust of others within the community.

The Stewart and Hoult and absolutist approaches would argue oppositely. The individual with more experience with the outside world would have a greater trust in people; he would have gained role knowledge and experiences and would be better able to cope with other people than would the isolated individual. Since he would, in essence, be more modern and since trust of others is a modern characteristic in the absolutist view, there should be a positive correlation between trust and having resided outside the community.

To measure this variable, place of former residence, we asked of each respondent in Phase II if he had ever lived away from his community, and if so, if he had ever lived in a large city or not (a large city being one with 40,000 or more inhabitants). The three possible responses were "0", had never lived away from the community; "1", had lived away but in a small town; and "2", had lived in a large city. Sixty-five percent of the 1,307 respondents had never lived outside the community, 25 percent had lived outside but in a small community or town, and 10 percent had lived in a large city. Table 2 presents the correlations for the four trust items as well as the total trust score with this variable.

Table 2: Correlation of Trust with Residence Outside the Community

Trust Items	Correlation Between Items and Residence Outside the Community
1. Trust neighbors	-.109[b]
2. Majority of people honest	-.108[b]
3. Trust the majority	.045
4. No one helps when needed	.005
Total trust score (sum of 4 items)	-.079[a]

[a]Significant at the .05 level.

[b]Significant at the .01 level.

The first two items exhibit a negative correlation with residence outside the community which is statistically significant though low. The first of these two items refers specifically to the people within the community, the respondent's neighbors, and his trust of them. The second item immediately followed the first in the questionnaire which probably encouraged the respondent to interpret the item as also referring to people within the community, although it is phrased very generally about the majority of men being honest or dishonest. The last two items show no significant correlation with outside residence, although the direction is positive. These two items come somewhat later in the questionnaire and probably are not perceived as referring to people in the community but rather people in general. Their generality might have

contributed to their low correlations since they proved to be the least reliable items in the scale (see Appendix B).

The two items that refer to people in the community correlate negatively, thereby substantiating the immant approach rather than the absolutist. More experiences outside the community tend to preclude trust relationships within the community, rather than support them.

Visits to the City

The immanent and absolutist approaches again differ in hypotheses relating trips to a city and interpersonal trust. The former would expect a negative relationship and the latter a positive one, with the rationale being similar to that offered for the variable "residences outside the community". Of the 1,307 respondents in our sample, 46 percent never visited a large city during the immediate preceding year. Table 3 deals with the correlations of the four trust items and the variable "number of visits to a city."

Table 3: Correlation of Trust with Visits to City

Trust Items	Correlation between Items and Visits to City
1. Trust neighbors	-.091[a]
2. Majority of people honest	-.046
3. Trust the majority	.013
4. Someone helps when needed	.015
Total trust score (sum of 4 items)	-.043

[a]Significantly different from zero at the .01 level.

These correlations show some minimal support for the immanent approach, while there is no significant support for the absolutist one.

Membership in Organizations

Organizations in which the respondent is a member might also serve cosmopolite interests. The local cooperative is expecially indicative of an "outside" orientation, since belonging to the cooperative indicates a participation in the state and national economic system. The coop is usually a market for farmers' milk and other products and sometimes a supplier of tools, seeds and fertilizer. Tönnies (1957) also would suggest that this activity in the cooperative would indicate a certain degree of rationalism, a knowledge and appreciation of economic return from the outer world, in short a cosmopolite orientation.

Each respondent was asked if he belonged to a cooperative or not; 62 percent were not members and 38 percent were. Table 4 shows how this variable correlates with trust.

Table 4: Correlation of Cooperative Membership with Trust

Trust Items	Correlation between Trust Items and Cooperative Membership
1. Trust neighbors	-.152[b]
2. Majority of people honest	-.067[a]
3. Trust majority of men	-.033
4. Someone helps when needed	-.023
Total trust scale (sum of four items)	-.111[b]

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

With this variable, all four trust items correlate negatively, while the first item and the total trust score show for this sample high negative correlations. Again, it appears that the immanent predictions draw the more support.

We also questioned the respondents concerning his participation in other organizations in the local area such as clubs, societies, and the like. These organizations may not be an indicative of outside influences as the cooperative, yet few small communities like those in the sample could maintain organizations that are wholly indigenous to the community. The question in the interview schedule asked for the number of other organizations (cooperative excluded) to which the respondent belonged; 61 percent belonged to no other and 39 percent belonged to at least one other, while the total possible number was nine. Table 5 shows the relevant correlations of trust with organizational participation.

Table 5: Correlation of Trust with Organizational Participation

Trust Items	Correlation between Trust and Organizational Participation
1. Trust neighbors	-.077[a]
2. Majority of people honest	-.016
3. Trust the majority	.054
4. Someone helps when needed	.041
Total trust score	.002

[a]Significantly different from zero at the .05 level.

Only the first item correlated significantly with organizational participation, but this correlation is negative, so some support is again given to the immanent theoretical approach rather than the absolutist one. The picture that is emerging of the respondent who trusts his neighbor appears to be one of a fairly isolated person cut off from both outside contacts in cities and to a degree from community based activities. Though the correlations are low, the trusting person is also one who has little contact with the city and participates relatively less than others in community organizations.

Other characteristics may encourage an individual to sample cosmopolite influences. Education and literacy would prepare for this cosmopolite participation. Wealth would allow it. Age might be an index of the amount of experience with the outside world an individual has.

Two questions dealt with the educational level of the respondent; one asked how many years he had gone to school and the other was a literacy question asking the respondent to read a prepared 50 word text in the presence of the interviewer. The years of education variable was coded as actual years and the functional literacy measure was the number of words the respondent read correctly.

Three measures were used to obtain an indication of the respondent's wealth; (1) a question asking for, in general terms, the yearly family income yielding responses which were categorized into eight income levels; (2) a level of living index composed of 13 households and farm improvements which the farmer either had or did not have, such as a water filter, bathroom inside the house, and agricultural

machinery; and (3) a question pertaining to farm size simply asking the farmer how big his farm was.

The mean age in our sample was 44.4 years, and the median, 43 years. The first question in the interview schedule asked the respondent's age.

Table 6 shows the relevant correlations of these variables with trust, this time using only the total trust score to measure trust of others, meaning most probably for our respondents, trust of neighbors.

Table 6: Correlations of Trust with Education, Wealth Measures, and Age.

	Total Trust Score
Age	-.137[a]
Education	-.121[a]
Literacy	-.128[a]
Income	-.117[a]
Level of living	-.196[a]
Farm size	-.100[a]

[a]Significantly different from zero at the .01 level.

Summary

From Table 6 we see further detail on the "typical" person who trusts his neighbors: he is relatively young, has little or no education, little ability to read, is relatively poor, and has a low level of living and small farm. This information supplements our previous findings of a fairly isolated individual in terms of his contact with the city and his lack of participation in rural organizations.

CHAPTER III

EXPOSURE TO MASS MEDIA AS RELATED TO INTERPERSONAL TRUST

The mass media "are a liberating force because they can break the bonds of distance and isolation..." (Schramm, 1964, p. 127). In this simple statement Schramm points to the mass media as another possible means by which cosmopolite influences enter rural communities. The mass media carry information about the way people live in cities and even in other countries; in some of the media information pertaining to agricultural innovations may be carried; news of political events and figures on the national and international scene are common mass media fare in nearly all countries. Exposure to these mass media may bring pressure on the media consumers in our sample in a fashion similar to the other manifestations of cosmopolite influences discussed in the previous chapter.

Expectations about the relationship between mass media exposure and interpersonal trust, would vary depending on one's theoretical preferences, either absolutist or immanent. The absolutist would posit that as a force for modernization, the mass media function to increase interpersonal trust thereby creating a positive relationship between the two variables. The immanent approach would view the change in orientation signaled by exposure to the mass media as possibly weakening localite interpersonal bonds, such as trust of one's neighbors, creating negative relationship between the two variables.

In order to determine what, in fact, the relationship between mass media exposure and interpersonal trust is, we shall (1) define the dimensions of mass media exposure through an examination of such exposure in rural Brazil, and (2) test the empirical correlations of these mass media exposure dimensions with trust of neighbors in order to show which of the two theoretical approaches is more nearly correct.

The Nature of Mass Media Exposure in Rural Brazil

Most studies of mass media exposure in development demonstrate the intercorrelation of exposure to the various media (Rogers, 1966, and Deutschmann, 1963, for example). The notion of a general exposure to the various media such as radio, newspapers, television and movies presumes that exposure to one of these media is correlated with exposure to all the others. Apparently some set of motivations that results in turning on the radio likewise influences the reading of newspaper, watching television, or attending a film. Such an argument, however, might conceal certain preferences that individuals have, habits that they follow because of the availability of the various media, or economic factors that influence the type of mass media exposure. As a result of these considerations, we propose to examine the dimensionality of exposure to the mass media through the use of factor analysis. This procedure does not deny that exposure to the various media are intercorrelated; rather, that mass media exposure may have sub-dimensions.

Intercorrelations of Media Exposure Measures Across Economic Levels

Since factor analysis examines the zero-order correlation matrix in its search for various dimensions, and since these correlations might be

fortuitous in many instances, we did a separate factor analysis for four distinct economic levels of communities. The economic criteria for classifying the 20 Phase II communities into four categories from least to most economically developed were the percent of community homes possessing running water, inside toilets, a radio, and electricty (see Chapter VIII for a discussion of this measure of economic development). The reason behind this classification was more of a suspicion that economic factors may be behind media exposure; by looking at various economic contexts, these ties should become visible.

The two hypotheses tested through this use of factor analysis are: (1) if there is sufficient unreliability in the measures, the resulting correlations should fluctuate noticeably from level to level, and (2) if the correlations were actually different in some consistent manner (like increasing steadily from the less to more developed levels), then the factor structures for the four levels might be different. Contrarily, if neither of these two hypotheses hold, and the factor analyses are similar, we would have a great deal more faith in the stability of the dimensions uncovered than if we had done the analysis only once for the whole sample.

We selected four measures of media exposure, frequency of radio, newspaper,[1] television and cinema exposure. As Table 7 shows, there is progressively more exposure to these media in more developed communities.

Apparently the progression of exposure to the various media is linear from the less developed areas to the more developed ones. An

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[1]Magazine exposure is included in the newspaper exposure measure.

Table 7: Mean Frequency of Exposure to Four Mass Media--Phase II

	Exposure to Newspaper per month		Exposure to Radio (rating from never to once per day)[a]		Exposure to TV (never; rarely; in own home)[a]		Exposure to Cinema per year		(N)
	$\overline{X}$	(S.D.)	$\overline{X}$	(S.D.)	$\overline{X}$	(S.D.)	$\overline{X}$	(S.D.)	
Level 1 (Least developed)	1.09	(4.00)	1.98	(.50)	0.24	(.43)	0.88	(3.97)	(368)
Level 2	2.16	(5.73)	2.17	(.97)	0.39	(.55)	2.01	(7.97)	(346)
Level 3	3.27	(7.20	2.17	(.97)	0.59	(.54)	2.48	(9.38)	(301)
Level 4 (Most developed)	7.50	(11.18)	2.48	(.80)	0.85	(.61)	6.20	(16.61)	(292)
Total Sample	3.31	(7.67)	2.19	(.93)	0.50	(.58)	2.74	(10.35)	(1,307)

[a]These measures are just rankings of individuals. For radio the rankings are from 1 to 5; for T.V., the rankings are from 1 to 3.

analysis utilizing each of the 20 communities as a separate unit reveals high correlations of .77, .62, .81, and .71 of community newspaper, radio, TV and cinema exposure, respectively, with community economic development.[1]

A second question is the stability of the individual media correlations across the four levels of communities. Table 8 presents the intercorrelations for the four media for each of the four economic levels.

[1]See Stanfield (1968) for a discussion of the correlates of community economic development.

Table 8: Intercorrelations of Media Exposure for Four Economic Levels

Correlation between	Level 1	Level 2	Level 3	Level 4	Total Sample
Newspaper and Radio	.188[a]	.153[a]	.104[a]	.114[a]	.171[a]
Newspaper and TV	.128[a]	.213[a]	.143[a]	.398[a]	.337[a]
Newspaper and Cinema	.209[a]	.194[a]	.271[a]	.365[a]	.344[a]
Radio and TV	.164[a]	.221[a]	.191[a]	.108[a]	.226[a]
Radio and Cinema	.192[a]	.134[a]	.111[a]	.061[a]	.177[a]
TV and Cinema	.188[a]	.174[a]	.234[a]	.295[a]	.273[a]

[a]Significantly different from zero at the .05 level.

There appears to be no systematic increase or decrease in the correlations as we move from the less to more developed communities, so that economic development has no apparent linear effect on the size of the correlations between the various media.[1]

Of the 36 possible pairs of correlation (comparing each level with all others) in Table 8, five (or 14 percent) are significantly different one another, which means that statistically speaking they come from different populations.[2] These five result from the relatively high

[1]Except perhaps for the correlations between radio and movie exposure, which disappear in the highest developed level and TV and movie exposure which becomes stronger as development progresses.

[2]This difference was tested with McNemar's procedure (McNemar, 1962, p. 140). The significant differences are for the newspaper and TV correlation between levels 1, 2, and 3 compared with level 4; and for the newspaper and movie correlation between level 1, and 2 compared with level 4.

correlation between newspaper and TV exposure (r = .398) and newspaper and movie exposure (r = .365) in the highest developed level as compared with these correlations in the other levels. It might be argued that these high correlations in level 4 are a function of the increased variance in the variables concerned in this level. However, there is a general increase in the variance from less to more developed communities for all of the exposure measures; if the variance arguments were correct, we should have progressively higher correlations across the four levels, and such is not the case.

Variance of Media Exposure Measures Across Economic Levels

The variances of the four media exposure variables are strikingly dissimilar for the four groups, especially for newspaper and movie exposure. In fact, the F ratio shows in Table 9 that all four groups are significantly different from one another. Generally, the variance of the media measures increases as development progresses. Such a result would occur if in the development process, only a portion of the populace change their habits, while a substantial number retain their traditional ways. In this fashion, the average media exposure increases as does the variance. The major exception[1] to this generalization is radio exposure. For exposure to radio, the variance actually decreases in the most developed level. This finding might suggest that the populations of the more developed communities are moving in unison toward more radio exposure. We might further hypothesize that as development

[1]To a degree, TV exposure is also an exception; this may be a reflection of television's rarity in rural areas, however.

Table 9: Variances for Each of the Mass Media Exposure Items for the Four Economic Levels.

Economic Level	Variance				
	Exposure to Newspaper	Exposure to Radio	Exposure to Television	Exposure to Cinema	Sample Size
Highest level of economic development	16.00	.25	.18	15.76	368
Medium high level	32.83	.94	.30	63.52	346
Medium low level	51.84	.94	.29	87.98	301
Lowest level of economic development	124.99	.64	.37	275.60	292
F^a_{max}	7.66	3.76	2.06	17.49	

[a] F_{max} assumes that the variances compared are all based on samples of equal size. Such is not the case here; but since the samples are not overly different, F_{max} gives some indication of the differences in variance. For samples with more than 200 subjects, the expected value of F_{max} is approximately 1.00; since all of our ratios exceed the value, we are not far off when we say that these variances are different beyond what would be expected from sampling fluctuations.

proceeds a relatively higher exposure to radio becomes the community norms.[1]

Factor Structure in the Four Economic Levels

In addition to the four media exposure items discussed previously, ten other items relating to media usage and preference were used in the orthogonal factor analysis in each of the four community levels. The four factor solution was arbitrarily chosen to facilitate comparisons across levels. To facilitate interpretation, only those items loading .40 or above on a given factor and less than .40 on other factors, were retained to define that factor.

Radio exposure appears as a distinct factor in the analysis. In each of the four levels, three items relating to radio use formed a separate and pure factor, as indicated in Table 10.

Beyond the clear emergence of a radio factor, the other media generally combine differently for the different levels. In three of the four, exposure to the cinema and television combine to form a separate and relatively pure factor that might be labeled "visual-electronic". In the two more developed levels, there seems to be a general newspaper or print factor, while in the other two less developed levels print exposure does not fall clearly with any one factor. A final factor that emerges with more or less clarity across the four levels, especially in the three more developed levels, is related to the reception of information via technical sources such as the extension service, farm journals and agricultural specialists.

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[1]The suggestion to development planners from these findings would seem to be that radio may be the most suitable of the mass media for reaching rural masses, since radio exposure becomes common factor.

Table 10: Factor Structure of Mass Media Items in Four Phase II Economic Groups

	Factor I[a]		Factor II					
	Item	Loading	Item	Loading	Item	Loading	Item	Loading
	RADIO		VISUAL		PRINT TECHNICAL		LOCAL	
Lowest Economic Level 1	Possess radio	.769	TV exposure	.716	Can read newspaper	.563	N.P. exposure	.442
	Frequency listen	.825	Movie exposure	.553	Receives newspaper	.675	Receives ag. news via n.p.	.409
	Receive ag. news via radio	.730	Receive ag. news via TV	.706	Receive ag. news via magazines	.686	via neighbor	.838
	RADIO		MOVIE-NEWSPAPER		TECHNICAL		TV	
Low Economic Level 2	Possess radio	.802	Movie exposure	.597	Receive ag. news via magazines	.672	Receive ag. news via TV	.809
	Frequency listen	.851	Can read n.p.	.552	via neighbors	.657	TV exposure	.616
					via agronomists	.656		
					via ACAR bul.	.563		
	PRINT		RADIO		TECHNICAL		VISUAL	
High Economic Level 3	N.p. exposure	.709	Frequency listen to radio	.844	Receive ag. news via ACAR bul.	.741	TV exposure	.771
	Receives n.p.	.790	Has radio	.944	via neighbors	.647	Movie exposure	.613
	Receives ag. news via n.p.	.633	Receive ag. news via radio	.650	via agronomist	.630	Receives ag. news via TV	.585
	PRINT		RADIO		TECHNICAL		VISUAL	
Highest Economic Level 4	Receive n.p.	.722	Frequency listen to radio	.845	Receive ag. news via agronomist	.751	Receive ag. news via TV	.731
	Can read	.695	Receive ag. news via radio	.651	via ACAR bul.	.705	Movie exposure	.703
	Receive ag. news via newspaper	.690					TV exposure	.588
	N.P. exposure	.610						

[a]Items included to define the factors all load higher than .40 on the factor they define and less than .40 on other factors.

The results cited seem to warrent the following conclusions: (1) there is no overriding single dimension of mass media exposure, although exposure to the various media are generally correlated; (2) in studies such as this, the measurement of communication activity should include separate items relating to radio, newspaper and television or cinema; (3) since there are only relatively low correlations among these factors, one cannot be substituted for the other in our analyses, thereby making it necessary to do separate analyses for each medium; and (4) the factor structures are generally similar across economic levels, although the content of the factor varies across levels, which means, perhaps, that the measures are weak.

Factor Analysis Over Time: Measurements of Media Exposure

The preceding analysis attempted to examine the stability of the factor structure for variables related to the mass media across four different subsamples where the data came from one point in time. It is also appropriate to examine the stability of the factor structure for a given sample at two different times, in order to determine the reliability of the factor structure across time. To this end, a randomly drawn subsample of 315 people from the Phase II list of respondents were reinterviewed one year after the Phase II data-gathering. While not all of the questions relating to mass media were repeated, a sufficient number were asked to provide a general notion of the factor structures at this second point in time (Phase 2.5). The means and standard deviations of the four core variables are reported in Table 11. The Phase II data from those respondents interviewed in Phase 2.5 as well as the overall Phase II data are also included.

Table 11: Mean Frequency of Exposure to the Mass Media and Standard Deviations

	Exposure to newspaper (per month)		Exposure to radio (per week)		Exposure to TV (per year)		Exposure to cinema (per (year)	
	$\bar{X}$	(S.D.)	$\bar{X}$	(S.D.)	$\bar{X}$	(S.D.)	$\bar{X}$	(S.D.)
1. Phase 2.5 sub-sample (n=315)	2.43	(6.06)	2.10	(1.02)	.63	(.56)	1.13	(4.28)
2. Same subsample from Phase II	3.19	(7.57)	2.10	(.91)	.46	(.55)	1.77	(7.37)
3. Total Phase II sample	3.31	(7.67)	2.19	(.93)	.50	(.58)	2.74	(10.35)

The means and standard deviations are apparently quite different in the Phase 2.5 data collection from what they were in Phase II for the same people and for the same items. The differences are shown in Table 12, which deals with correlated means and variances.

The differences in means are most noticeable for newspaper, cinema, and TV. The differences in variances are most noticeable for newspaper and cinema exposure. Since the distribution for those mass media exposure variables are typically skewed highly to the left with a substantial portion of the sample having no exposure to the media, a decrease in the number of extreme responses in Phase 2.5 would affect both the variance and the mean. Such a possibility seems to be a plausible explanation for the over-time differences, especially for the two most skewed distributions (newspaper and cinema exposure), since the reliability coefficient[1] fo

[1]This coefficient is simply the zero-order correlation betwe[illegible] Phas[illegible] II and Phase 2.5 responses.

Table 12: Differences Between Phase II and 2.5 in Terms of Means and Variances[a]

Media	Means			Standard Deviations		
	Phase II	Phase 2.5	Correlated t	Phase II	Phase 2.5	Correlated t
Newspaper	3.19	2.43	2.60[c]	7.57	6.07	5.36[c]
Radio	2.16	2.10	1.02	.91	1.02	2.23[b]
TV	.46	.63	4.86[c]	.55	.56	.34
Cinema	1.77	1.23	2.01[b]	7.37	4.28	12.49[c]

[a]The difference statistic used is "correlated t" since the same respondents constitute both samples. However, as observed above by no stretch of the imagination could the distributions for newspapers, TV or cinema exposure be considered drawn from a normally distributed population. Therefore, the borderline differences at the .05 level probably are not significant. However, the .01 differences probably are. To the extent that the inference process is based on random samples from a specified population, we probably are dealing on a hypothetical level anyway.

[b]Significant at the .05 level.

[c]Significant at the .01 level.

these variables are fairly high: .65 and .64, respectively. For newspapers and cinema, this high reliability plus the decrease in variance gives us a good deal of evidence that for some reason individuals responded less extremely in the second data collection. Perhaps this happened because the respondents more carefully considered their responses in the second interview.

The two items pertaining to radio and TV exposure have relatively low reliability, .43 and .37, which indicates that some respondents

shifted in ranks enough to affect the reliability coefficient. The low reliability for radio and TV, forces us either to grant that the questions did not function well or that certain parts of the population changed during the year while others did not. Radio and TV exposure measures were worded differently from the newspaper and cinema items; for the latter two media, respondents were asked for the actual number of times per month or year that they read newspapers or went to the movies. In the case of radio, respondents were asked only if they listened irregularly or about one hour per day. For TV, a similar question was asked to ascertain if the respondent watched TV at all, and if so, if it were at home or in another place. Perhaps, in order to achieve reliability for these two media, frequency of watching should be the form of the question used, rather than the respondent's "impressions" about his exposure to the media. It is true that in some communities literacy classes were initiated between Phase II and Phase 2.5; however, the effect of these classes had not yet been felt (Herzog, 1967). In addition, newspaper exposure should be most effected by these literacy classes, and yet the two samples were ranked quite similarly. Perhaps our only explanation is the unreliability of the items.

Turning to the intercorrelation of the mass media items as shown in Table 13, some of the correlations from Phase 2.5 are higher and some lower than the comparable correlations from Phase II. No statistically significant differences in correlations appear, however.

Table 13: Intercorrelations of Media Exposure for Phase 2.5 Sub-Sample, Phase II subsample, and Total Phase II Sample.

Correlation	A Phase 2.5 (1967) Subsample (n=315)	B Phase II (1966) Subsample (n=315)	C Phase II (1966) Subsample (n-1307)	Differences[b] A-B
Newspaper and radio	.139[a]	.195[a]	.171[a]	-.057
Newspaper and TV	.333[a]	.345[a]	.337[a]	-.014
Newspaper and cinema	.185[a]	.223[a]	.344[a]	-.040
Radio and TV	.225[a]	.209[a]	.226[a]	+.016
Radio and cinema	.060[a]	.151[a]	.127[a]	-.092
TV and cinema	.185[a]	.123[a]	.273[a]	+.037

[a]Significantly different from zero at the .05 level.

[b]Calculated by first transforming correlations to z-scores, and then subtracting. The correlations do not appear different for the two matched subsamples except for the fact that the Phase II correlations are usually higher. Perhaps this fact reflects poorly on the quality of 2.5 interviewers although the differences are not extreme.

Factor Structure in 2.5

Since the Phase 2.5 data comes from a subsample, we are able to check the reliability of the factor analysis for the matched subsample, that is, for the 315 people interviewed twice.

In terms of the factor structures, the factors from Phase 2.5 are similar to Phase II. Again there emerges a strong radio factor, while the remaining media load together in one solution and split in another. The

three factor solution using the 2.5 data is presented in Table 14. Items relating to cosmopoliteness were included with the purpose of testing for the existence of a general "exterior orientation" factor.

Table 14: Three Factor Solution From Phase 2.5

	Items	Factor I "Radio"	Factor II "city"	Factor III "Visual" (Newspapers, TV, cinema)
1.	Ever resided outside community	-.148	.091	.348
2.	Frequency of visits to large city	.067	.916	.063
3.	Frequency of visits to relatives in city	.129	.905	.048
4.	Preference for city	.018	.130	.021
5.	Can read newspapers	.449	.231	.557
6.	Number read	.116	.004	.756
7.	Reception of n.p. and magazines	.447	.096	.573
8.	Has radio	.812[a]	.003	.183
9.	Frequency of listening to radio	.858	.076	.022
10.	Listening to program, "Farmer's Hour"	.858	.076	.022
11.	Frequency of TV watching	.297	.203	.578
12.	Frequency of attending cinema	.016	.024	.521

[a]Underlining means that the item is highly loaded on the factor with a loading of .40 or more with a low loading on any other factor (less than .40).

This three factor solution differs from the four factor solution only slightly (which for this reason, is not presented), with cinema exposure and preference for the city (over the country) breaking off to form the fourth factor. As in the earlier factor analyses of the Phase II data, radio emerges as a distinct factor, while the other media can form a single factor in one solution but break apart in another. The

Phase 2.5 data leaves us with the same general impression gleaned from the Phase II data. There is no unidimensional measure of mass media exposure in these data; therefore, the various media should be treated separately.

It might be noted that this general impression may be misleading, since the factors depend on the item intercorrelations for their formation and that the radio related items are not completely independent measures. A person has to have radio exposure in order to get agricultural news via this medium. This fact may artifically inflate the correlation between radio items. However, the equally reasonable expectation for a correlation between a capacity to read and newspaper exposure does not result. The capacity to read loads lowly and impurely on two factors, one refering to radio exposure and the other to newspaper and TV exposure.

Yet another factor that may cloud the purity of correlations is the economic capacity to buy into the various mass channels. For example, the loading of newspaper exposure with TV might be the result of the necessity for sufficient economic surplus to purchase newspapers and buy a television set. This possibility led to the calculation of the partial correlations between all the media holding income constant as shown in Table 15.

In each case the partial correlation is less than the zero-order correlations, leading us to conclude that there is an income effect. The three most-affected correlations are the correlates of newspaper exposure, which is not too surprising since newspaper exposure's correlation with

Table 15: Partial Correlations of the Media Holding Income Constant

Correlation between	Phase II - Subsample		
	Zero-order	Partial	Difference
Newspaper and radio	.195	.100	.097
Newspaper and TV	.345	.283	.079
Newspaper and cinema	.223	.143	.083
Radio and TV	.209	.140	.072
Radio and cinema	.151	.081	.071
TV and cinema	.123	.052	.072

income is the highest (.331) of the four media. Such a finding perhaps accounts for the impure loadings discussed in Table 14, since income may be tying the newspaper exposure variables to the other media more than the actual exposure would warrant.

Conclusions

The following observations result from the preceding analysis:

1. Mass media exposure for all media generally increases as we go from the less to the more economically developed communities.

2. For all media except radio, the variance also increases from the less to more developed communities, which means simply that change is taking place and that some people adopt new media while others reject that change and retain the old ways. In the case of radio, perhaps, the change has been more rapid or at least longer on the scene so that homogeneity within the community has been re-established.

3. Exposure to the radio is a reappearing factor across the four economic levels of communities while the other media combine differently in each group, suggesting that mass media exposure is a multi-dimensional concept. A second somewhat stable factor relates to the use of technical sources for information about agriculture.

4. The pattern of the factor structure remains relatively stable across time. A strong radio factor emerges in the re-interviewing of a sub-sample one year later, while the other three media form a second factor for one solution but break apart in another. The somewhat unclear nature of mass media exposure implies that in studies where this exposure is of interest, separate measures should be used for each medium.

5. The correlations among the various media can to a certain extent be attributed to a third variable, namely economic affluence, especially for the correlations of newspaper readership with the other media. In considering correlations of media exposure with other variables, therefore, the effects of income should always be checked.

6. The reliability of the measures is often not high both in terms of the ranking of individuals at two different times and in terms of the estimates made about population values like means and variances at two different times. These unreliabilities should be taken into account before applying these data in suggestions or decision-making dealing with development.

Correlations of Mass Media Exposure and Interpersonal Trust

Since some differences appeared among the four economic levels, we will examine the correlations of trust and exposure to the various media in each economic level. The absolutist would predict a positive correlation

between mass media exposure and trust, since the mass media are instruments that introduce change and widen horizons for the individuals exposed to them, and since trust is a modern attitude. The immanent approach would say that the mass media bring about a change in perceived isolation within the community which in turn leads to an actual decrease in trust, thereby creating a negative correlation between exposure to the mass media and interpersonal trust.

Table 16 shows for each economic level the zero order correlations between the four media and the four trust items plus the total trust score (composed of the sum of these items).

The results shown in Table 16 are not overly encouraging if we look at the size of the correlation coefficients; very few reach an acceptable level of statistical significance. However, the overall pattern is very clear: namely, that the trust items generally are negatively correlated with exposure to the mass media, excepting, perhaps, exposure to the cinema. The pattern emerges across economic levels showing the same general negative correlation between trust and mass media exposure, especially for the trust of neighbor item. The correlations for the whole sample show the negative correlational pattern even more clearly.

These correlations may be influenced by the mutual correlation of trust and mass media exposure with wealth, a possibility that emerged earlier. Considering only the whole sample and the total trust score, Table 17 shows the partial correlations between trust and mass media exposure with income controlled.

Table 16: Correlations of Mass Media Exposure and Interpersonal Trust

	Trust Items by Economic Level	Mass Media - Frequency of Exposure			
		Newspaper	Radio	Television	Cinema
Lowest Economic Level 1 (N=368)	1. Trust neighbors	-.043	-.067	-.026	.004
	2. Majority of men honest	-.009	-.060	-.059	-.019
	3. Trust majority of men	.077	-.050	-.034	.052
	4. Someone helps when needed	-.043	-.057	-.118[a]	-.004
	Total trust score	-.004	-.097	-.100	.020
Low Economic Level 2 (N=391)	1. Trust neighbors	-.196[b]	0.192[b]	-.198[b]	-.102[a]
	2. Majority honest	- 033	-.048	-.147[b]	.032
	3. Trust majority	-.001	-.067	-.032	-.001
	4. Someone helps	.057	-.093	-.115[a]	.043
	Total trust score	-.080	-.164[b]	-.108[a]	-.015
High Economic Level 3 (N-325)	1. Trust neighbors	-.140[a]	-.054	-.165	.016
	2. Majority honest	-.043	-.046	-.045	.058
	3. Trust majority	.025	-.040	-.082	-.079
	4. Someone helps	.156[b]	-.008	-.036	.062
	Total trust score	-.007	-.065	-.045	.084
Highest Economic Level 4 (N=223)	1. Trust neighbors	-.146	-.024	-.030	-.050
	2. Majority honest	-.085	.003	-.101	-.126
	3. Trust majority	.064	.044	-.008	.050
	4. Someone helps	.022	-.008	-.109	.067
	Total trust score	-.057	.033	-.011	-.220
Total Sample (N=1307)	Total trust score	-.101[c]	-.101[c]	-.142[c]	-.026

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

[c]Significantly different from zero at the .001 level.

Table 17: Partial Correlations of Trust and Mass Media Exposure with the Effects of Income Removed

Mass media	Zero-order correlation with total trust score	Partial correlation with trust, income partialled out
1. Newspaper exposure	-.101[b]	-.070[a]
2. Radio exposure	-.101[b]	-.072[a]
3. Television exposure	-.142[b]	-.116[b]
4. Cinema exposure	-.026	.006

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

In each instance where there had been a significant relationship, partialling out the variance common with income reduced the correlation, although not sufficiently to make the correlation statistically insignificant. Thus, there is some support for the possibility that income might be partially responsible for the relationship between trust and media exposure; the overall relationship remains, however, even when the effects of income are removed.

The analysis of exposure to the mass media and its relationships to interpersonal trust yields conclusions that parallel the general findings of the previous sections dealing with the general dimension of cosmopoliteness-localiteness. Trust of others, especially, neighbors, is a localite phenomenon, correlated negatively with exposure to newspapers, radio and television

CHAPTER IV

TRUST OF OUTSIDERS, TRUST OF PEERS, AND COSMOPOLITENESS

To this point in the analyses, the basic object of trust with which we have been dealing has been the respondent's "neighbor" or people in general, where the significant correlations generally come from the "neighbor" item. The conclusion at this point is that an individual who is highly oriented toward his neighbors, as exemplified by this trust sentiment, has many localite characteristics also.

We have not yet examined the other general category of trust objects, people or groups who generally exist or come from outside the community. Since we argued that a trust for individuals within the community might be a manifestation of a localite orientation, the reverse should also be true: namely, that trust of people and groups from outside the community should be a manisfestation of cosmopoliteness. Specifically, this reasoning means that for those variables just examined to describe cosmopoliteness, there should be a reverse or positive relationship with trust of outsiders.

In the Phase 2.5 data-collection, we asked several questions about the trust of outsiders. One question phrased the object of trust as "the majority of people outside the life of the community;" another three questions related to trust of the ACAR supervisor (the local extension agent), and a final rating was done by the interviewer about his perceptions of how much the respondent trusted him during the interview.

The three items refering to trust of the ACAR supervisor are discussed in detail in a later section; suffice it to say at this point that the items were sufficiently interrelated to form a single index from their simple sum. The interviewer rating of the respondent's trust of him was made at the end of the interview on a seven point scale in the semantic differential form, with the two poles identified as "trusting" and "distrusting".

For these three topics relating to people or a group outside the life of the community, the immanent, absolutist, and Stewart and Hoult (1969) approaches would argue for a positive relationship between trust and cosmopolite influences under most circumstances. Experience with outsiders, whether direct through personal communication, or indirect through mediated communication channels, should dispell the shadows of the unknown.[1] For the three trust objects we used--outsiders in general, the ACAR supervisor, and the interviewer--the respondent should have had relatively few negative experiences, whereas if we had used government officials or bankers, we might not expect trust to develop with experience. At least the ACAR supervisor and the interviewer should be

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[1]Simmel (1950, p. 404) argues that the stranger, because he is an outsider, is often trusted more than local people. The stranger has no ax to grind, he is objective. A trust of outsiders, however, depends on how threatening they are perceived to be, which in turn depends on stereotypes or actual experiences. We are arguing that a trust of outsiders implies an acceptance of the outside world which the outsider represents. This acceptance is not complete, since there are many people who distrust strangers. We hope to distinguish the trusting from the nontrusting respondents for these objects of trust that lie outside the community.

non-threatening trust objects. The measures of trust of three "outside" objects are intercorrelated as shown in Table 18.

Table 18: Intercorrelations of Trust of Outsiders in General, Trust of the ACAR Supervisor and Trust of the Interviewer

Trust Items	ACAR Supervisor	Interviewer
1. Trust outsiders in general	.162[a]	.160[a]
2. Trust ACAR supervisor		.249[a]

[a]Significantly different from zero at the .01 level.

It is in this domain of trust of outsiders that most observers have developed their hypotheses and observations about the role of trust in development. Since the researchers themselves are outsiders, traditional rural distrust of outsiders is probably readily apparent to them. Certainly agencies such as the extension service and community development organizations are often frustrated in their efforts because of this distrust (Dube, 1958). Distrust of "outsiders" then, is often viewed as a serious block of efforts to bring what the outside world views as improvements to rural life. The following variables and their relationship with trust of outsiders are designed to shed some light on how this block to change might be reduced.

Rather than considering singly the variables we discussed earlier, we present the variables and their correlations with trust of the three

"outside" objects in Table 19. A discussion of the measurement of these variables was presented earlier (see Chapters II and III). We are also presuming that the rationale arguing for positive relationships will in large part carry over from this earlier discussion. In brief, this rationale argues that trust of outsiders is an attitudinal manifestation of a general orientation beyond the borders of the community and, therefore, should correlate positively with other manifestations of this orientation.

Table 19: Correlations of Cosmopolite Variables with Trust of Outsiders Using Data from Phase 2.5 (n=315)

	Trust Object		
	Outsiders in General	ACAR Supervisor	Interviewer
1. Residence outside community	.054	.015	.094[b]
2. Trips to city	.023	.000	.033
3. Age	.055	-.021	-.027
4. Education	.010	.188[c]	.172[c]
5. Literacy	.055	.156[c]	.162[c]
6. Size of farm	.040	.112[b]	.111[b]
7. Level of living[a]	.103[b]	.143[c]	.298[c]
8. Newspaper exposure	.066	.105[c]	.105[b]
9. Radio exposure	.061	.111[b]	.266[c]
10. Television	.087	.213[c]	.270[c]
11. Cinema	-.042	.062	.087

[a]Income was not measured in Phase 2.5.

[b]Significantly different from zero at the .05 level.

[c]Significantly different from zero at the .01 level.

For every statistically significant relationship shown in Table 18, the direction is that hypothesized; that is, trust of outsiders is positively correlated with what we have labeled cosmopolite variables, whereas we found earlier that trust of others within the community is negatively related to these same variables. We also note that the three objects of trust are positively intercorrelated, which indicates that they all refer to the same dimension.

To this point, trust has been shown to act as a localite influence tying the individual to the community, if the object of that trust lies within the community; at the same time trust can act as a cosmopolite influence, if the object of that trust lies outside the life of the community. The necessity for specifying the object of trust is extremely important. Table 19 shows the need for this specificity in the general lack of significant correlations for the very general trust object "people outside the community"; apparently the responses to this question stimulus were not carefully considered, or the question not completely understood. However, the fact that the correlations obtained for this item were in general positive although not significant (statistically) gives support to our general argument. Apparently, the more specific the trust object is, the more probable significant findings become.

In sum the data give substantial support to the general hypothesis of a positive relationship between cosmopolite influences and trust of outsiders. Table 19 shows this positive relationship to be present for at least one of the three exterior objects of trust for all the cosmopolite measures except for "trips to the city," age, and cinema exposure.

The profile of the person who is more trusting of outsiders would be the following: he has lived outside the community, is educated and literate, has a large farm and a high level of living, and finally, reads newspapers frequently, listens to the radio and watches television often.

In the interest of the further specification of how trust might be relevant to rural life in general, and the process of change in particular. We turn now to examine how trust is related to innovativeness and cooperative orientations. In addition, we will examine how trust might be related to empathy and the need for achievement.

Innovativeness

Innovativeness is the relative earliness or lateness that an individual adopts a new agricultural practice or practice in comparison with others in his social system (see Rogers, 1962, p. 19). In the rural setting which is where our study takes place, such a definition is particularly valuable, since it specifies how the variable might be measured. In general, however, innovativeness can be viewed as a specific measure of an overall inclination to accept change and be open to new ways of doing things. If we consider the relative time of adoption of selected agricultural practices as our measure of innovativeness or the inclination to accept change, we would expect that the earlier adopters should be more oriented to the outside world than the later adopters. In fact, such a finding is common in diffusion research with 87 percent of the studies that examine cosmopoliteness and innovativeness finding

a positive relationship.[1] Such an empirical result gives some support to our earlier observations that change usually originates beyond the borders of the community; the persons most oriented beyond these borders would be most exposed to this change and, perhaps, more inclined to accepting it.

Since we have evidence that shows the possibility of considering trust of outsiders as a manifestation of cosmopoliteness, we would also expect this trust to be positively related to innovativeness. If change is most likely to be accepted by those who are more oriented to the world beyond the border of the community, and since trust of outsiders is a manifestation of this orientation, trust of outsiders should be positively related to innovativeness.

Stewart and Moult's (1959) notion that experiences beyond the limits of the reference group prepare the individual to accept phenomena beyond these limits would similarly link trust of outsiders and a positive change orientation. In a study of political attitudes, McClosky (1958) has argued analogously by showing that the ideology he called conservatism, which entails a respect for tradition and a rejection of innovation, is negatively related to a general trust of others (or as he phrased the variable, conservatism is positively related to a distrust of others). Rosenberg (1956) found a similar situation with distrust of others related to a feeling that public officials are

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[1]This figure of 87 percent refers to the studies done on the diffusion of innovations which are available from the Diffusion Documents Center, Michigan State University (Rogers and Stanfield, 1968).

unresponsive to the public, a belief that political machines run the candidates, a scepticism about freedom of speech, and a willingness to suppress certain political and religious liberties. While not referring directly to the rural context, we might extrapolate these ideas and hypothesize that trust of outsiders is positively related to innovativeness.

For those trust objects within the farmer's local reference group, that is, within the community, we have the two conflicting expectations from the immanent and absolutist approaches. On the one hand the immanent argument would be in favor of a negative relationship, since the trusting individual in this situation would not be open to change, at least not much ahead of others within the community. On the other hand, the absolutist would suggest that trust is a modern attitude and, therefore, should be positively related to the acceptance of change. Table 20 presents the data from both Phase II and 2.5 pertaining to these variables. Innovativeness was measured in both phases as the normalized years of adoption for a series of innovation--up to 12 in Phase II and only five in Phase 2.5. The set of innovations used in Phase II were especially selected for each community, while in 2.5, the same set of five practices were used in all communities.

The correlations are again, low, but those statistically significant, support the immanent position for the trust object "neighbors", and our general expectations for trust objects from outside the community. Provisionally, at least, we can accept the idea that trust of "insiders" is negatively related to the propensity to accept change, while trust of "outsiders" is positively related to the acceptance of change. See Table 20 for the relevant correlations.

Table 20: Correlations of Innovativeness with Trust Neighbors and Trust of Outsiders

	Correlations with Innovativeness (Relative Time of Adoption)
I. Trust of neighbors	
Phase II	-.121[a]
Phase 2.5	.021
II. Trust of outsiders	
Trust of outsiders (Phase 2.5)	-.049
ACAR supervisor (Phase 2.5)	.090
Interviewer (Phase 2.5)	.175[a]

[a]Significantly different from zero at the .01 level.

Cooperation

In the Phase 2.5 data-collection we included two measures of the respondent's general propensity to cooperate with others. One item asked for the respondent's activities, along with others, in efforts designed to improve the community. The question asked if the respondent had heard of any efforts to improve the community during the preceding year, and if he had, in how many of these projects he had personally participated. Of the 315 people interviewed, 64 percent had heard of no such activity; 12 percent had participated in two or more of the community improvement projects. Since this question dealt with community based activities, we included another indicant of a cooperative orientation by having the interviewer rate the respondent on how cooperative he was during the interview using a seven point semantic differential.

The question relating to community improvement efforts relied on the respondent's own perception of his past activity, and was not structured to deal with a specified activity. The localite community oriented individual should be likely to respond positively to this question, since he is oriented toward community life and likely to interpret many of his activities in terms of community life. Thus, we might expect a positive correlation between trust of neighbors and participation in cooperative project. A person oriented outside the community might be divided on this question. On the one hand he might be simply biding his time until he can leave and, therefore, would not feel impelled to do much within the community. On the other hand, the cosmopolite individual might be convinced that improvement of the community would help make his life more like the outside life he presumably admires.

Thus, we have reasons for expecting both a positive and a negative relationship between participation in community improvement activities and a trust of outsiders. To have more than one indicant of trust of neighbors, we included four trust items from Phase 2.5 that correlated among themselves and also referred to trust objects within the community. The same three items that refer to trust objects outside the community which have been used previously are again presented in Table 21.

Pertaining to the respondent's cooperation with the interviewer, we would expect the usual division between those who express trust of people within the community and those who express trust of outsiders.

For the former group a negative correlation should occur and for the latter, we should find positive correlations. The results are shown in Table 21.

Table 21: Community Improvement Activities and Cooperation with the Interviewer as Correlated with Trust of Peers and Trust of Outsiders

	Participation in Community Improvement Projects	Cooperation with Interviewer
I. Trust of peers (Phase 2.5)		
a. Trust of neighbors	-.039	-.098[a]
b. Trust of relatives	.195[b]	.051
c. Trust of friends	.083	.046
d. Trust of community	.096	.076
e. Loans not dangerous in community	.166[b]	-.048
II. Trust of outsiders (Phase 2.5)		
a. Trust of outsiders	.060	.162[b]
b. Trust of ACAR supervisor	.192[b]	.249[b]
c. Trust of interviewer	.195[b]	.746[b]

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

For the localite individual, who express trust of others within the community, the slight evidence suggests that he also participates in community improvement projects, at least he perceives himself as doing

so. At the same time there is some slight evidence that they also do not show much cooperation to a person from the outside who comes to interview them, even under the circumstance of having been interviewed a year previously. Perhaps the lack of significant correlations can be explained by this very fact of having been interviewed previously with no adverse experiences resulting from this earlier interview.[1]

The respondents who express trust in outsiders also say they have participated in community improvement projects. Such a result suggests that these individuals may be trying to bring their knowledge of the outer world to reality in their own communities. These same respondents also tend to show more cooperation in the interview situation, which supports our notions of how the cosmopolite person should behave. The generally low correlations of the community participation variable allow this seeming anomaly that everyone participates. There may also be trust types that are confounding these correlations (see Chapter V).

In summary, the individuals who express trust in objects within the community also participate in community cooperative improvement projects, and at the same time do not show much cooperation to the interviewer. Contrarily, those who express trust in objects outside the community tend to participate in community improvement projects, but they also show cooperation in the interview situation.

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[1]In one community some farmers were visited by state tax collectors soon after our initial interviewing, so that we possibly lost as well as gained acceptance between waves of interviewing.

Empathy

Lerner (1958) attempts to demonstrate the importance of empathy in the modernization process. He defines empathy as the ability of an individual to put himself in the position of another or, to use Steward and Hoult's (1959) terms, empathy is the ability to role-take. In the present study, we measured empathy by asking each respondent, "What would you do if you were a) the ACAR supervisor, b) the mayor of the municipio, and c) the president of Brazil. The interviewers rated the respondent's open-ended answers as to the degree to which the respondents placed themselves in the position of the role in question. A "no answer" response was coded "0" while responses of increasing sensibility and specificity were given the code of 1, 2 or 3.

Lerner postulates that the importance of empathy to modernization lies in the necessity for individuals to accept personally unknown people and roles. Such an ability is crucial, he argues, for society to maintain the organization and coordination necessary for the modern market economy. If individuals can imagine the situation of others who may not be personally known to them, the impersonal transactions characteristic of an industrialized nation are facilitated.

In our study, the objects of empathy are all beyond the borders of the community in the person of the ACAR supervisor, mayor or president. We might expect, following Lerner's notions, that the more empathic individual achieves this ability from exposure to unknown people and roles through the mass media. In a sense the argument is similar to that offered earlier for expecting a positive correlation

between trust of outsiders and cosmopolite influences; more experience with the outside world helps create the trusting response, and perhaps also the empathic response. Thus, we might expect a positive correlation between trust and empathy since both derive from the same process, especially for those objects that lie outside the community. Unfortunately, we have only one object which was used for both trust and empathy, the ACAR supervisor. Table 22 presents the relevant correlations from Phase II and 2.5 for the ACAR supervisor as well as the combined, general measures of trust and empathy.[1]

Table 22: Correlations of Empathy and Trust Items

	Empathy Items			Total Empathy
	Mayor	President	ACAR	(Sum of Items)
Phase II (N=1307)				
Trust neighbor	-.109[c]	-.096[c]	-.073[c]	-.092[c]
People honest	-.031	-.061[b]	-.001	-.048
Trust majority	-.034	.011	-.051	-.039
Someone helps	-.042	.063[b]	-.021	.024
Total Trust (Sum of four items)	-.051[b]	-.064[b]	-.033	-.056[b]
Phase 2.4 (N=315)				
Total ACAR[a]	.132[c]	.137[c]	.215[c]	.183[c]
Trust outsiders[a]	.028	-.044	.119[b]	.074
Trust interviewer[a]	.128[b]	.258[c]	.295[c]	.297[c]

[a]Measured only in Phase 2.5.

[b]Significantly different from zero at the .05 level.

[c]Significantly different from zero at the .01 level.

[1]The general measure of empathy is the simple sum of the three items.

The correlations in Phase II are clearly supportive of the immanent notions that trust of neighbors signifies a more limited view of the world, less experience with the outside and, therefore, a general incapacity for empathy with roles that lie in that outside world. In the specific case of the ACAR supervisor, the Phase 2.5 data shows there to be a positive correlation between trust of the supervisor and empathy with him. Indeed, trust of the ACAR agent is also correlated with other manifestations of the ability to empathize which we would expect if the ACAR agent is in fact an "outsider" as far as the farmers are concerned. The general positive correlation of trust of "outsiders" and empathy is exhibited by the item phrased as a trust of this general object, although the correlations are not high. The relationship is especially strong, however, for trust of the interviewer and the ability to empathize across several roles.

In summary, trust of neighbors (or localite trust) is negatively correlated with empathy, while trust of outsiders is positively correlated with empathy.[1]

Achievement Motivation

McClelland (1961) argues that a desire to achieve or "to get ahead in the world" is of fundamental importance to modernization. The more that people are imbued with this attitude the more rapidly

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[1]This latter correlation remains when exposure to newspapers is controlled in a partial correlation between empathy and trust of interviewer; the correlation drops only slightly from .297 to .261.

development can occur. Rosenberg (1965), Dahl (1965) and Terhune (1965) in a variety of research settings have attempted to link achievement motivation to a general trust of people.

Using our notions of the two types of trust, cosmopolite and localite, we argue that cosmopolite trust may be positively related to achievement motivation, while localite trust may be negatively related. These expectations derive from our earlier distinctions between the localite and cosmopolite life styles. The localite is oriented to the community, is usually poorer and less exposed to the external world and does not participate in local organizations, especially the cooperative, which is a local representative of the state and national economic system. Thus, the localite is more personally oriented, more ruled by tradition and probably less interested in an activity solely for the economic gain that it might entail. To the extent that the urban world and the exterior culture in general is economically oriented and demanding of "rationalistic" thinking (to use Tönnies terms), the achievement motive might also be a facet of this way of life. Thus, the cosmopolitan type of trust should be positively correlated with achievement motivation, while the localite type should be negatively correlated.

Again, we get a different expectation from the absolutist school. The absolutist argues that peasant culture developes stringent controls over the achievement motive and tends to discourage it. Foster (1965) uses the concept of "limited good" to describe the peasant mentality; the person who tries to get ahead is viewed with suspicion by his

neighbors since he must be succeeding at their expense. A personal motivation to achieve would be discouraged in this type of culture. Since some differences in wealth are almost unavoidable, suspicion of everyone (within the community) must also be a characteristic of the peasant mentality. Thus, there should be a positive correlation between achievement motivation and trust; where one does not exist, neither does the other, and where the culture begins to accept the desirability of getting ahead, so also will trust develop.

In the present study we measured achievement motivation with a variety of attitudinal questions where a particular response indicated the presence of this motive. In the Phase II study, two questions were used to measure this concept which were similar in form to empathy questions. The questions were, "What would you do if you had 25 or more head of cattle?" and "What do you intend to do in the next three years?" As in the case of empathy, the responses were unstructured; they were coded according to the degree of achievement motivation they exhibited. In the Phase 2.5 study a Guttman scale of five items was formed using the same two items as in Phase II plus three agree-disagree questions with the following wording: "It is better to be content with the little one has than to be always be struggling for more;" "No matter what I've done, I am always wanting to do more;" "The way things are nowadays makes it discouraging to work hard." The coefficient of reproducibility for these five items was 90.6 where the least popular item had 30 percent of the sample giving the high achievement response. Table 23 shows the correlations of achievement motivation with interpersonal trust.

Table 23: Correlations of Achievement Motivation with Trust of Peers and Trust of Outsiders

	Achievement Motivation Phase II (n=1,307)	Achievement Motivation Phase 2.5 (n=315)
I. Trust of peers		
a. Trust of neighbors	-.052	.039
b. Trust of relatives[a]		.064
c. Trust of friends[a]		.048
d. Trust of community[a]		.065
e. Loans not dangerous in community[a]		.094[b]
II. Trust of outsiders		
a. Trust of outsiders[a]		-.026
b. Trust of ACAR supervisor[a]		.128[b]
c. Trust of interviewer[a]		.120[b]

[a]Measured only in Phase 2.5.

[b]Significantly different from zero at the .05 level.

The slight evidence pertaining to trust objects within the community seems to argue for a positive relationship between the achievement motive and trust, contrary to the immanent expectations but in line with the absolutist reasoning. The cosmopolite trust objects also seem to be positively correlated with the need for achievement, which is in accord with our hypothesis.

The positive correlation found between localite trust and achievement motivation says that there is a slight tendency for the person who

trusts others in the community also to answer the need for achievement items in a positive manner. Conversely, a low trust person will answer these questions so as to show a lack of the achievement motive. Perhaps this result supports to some extent Foster's ideas about the nature of the peasant mentality, but it also supports Kahl's (1965) argument that trust is an integral part of this motive, that a belief in the world as non-threatening helps the individual to express his desires to get ahead. Of course the correlations are low, and perhaps the single significant one may be an accident; but all the correlations at least in the 2.5 study are in the same direction, which indicates that this relationship may be worth further examination in other studies.

Summary

This chapter has introduced the concept of "trust of outsiders" as a contrast to "trust of peers or neighbors" within the community. In general, this trust of outsiders as exemplified in: (a) a general trust of outsiders; (b) a trust of the ACAR supervisor, and (c) a trust in the interviewer, correlates positively with cosmopolite variables such as residence outside the community, newspaper, radio, television and cinema exposure; trust of outsiders is also correlated positively with education, literacy, size of farm, and level of living. The correlations of these same variables with trust of peers (neighbors) is negative.

Trust of outsiders is also positively correlated with innovativeness and empathy, while trust of neighbors is negative correlated with

these variables. Both types of trust are slightly correlated in a positive fashion with cooperative orientations and achievement motivation, which leads us to believe that there may be some overlap between the two types of trust.

CHAPTER V

TYPES OF TRUSTING ORIENTATIONS

The cosmopolite-localite framework has been the context for our consideration of trust. Trust of others within the community is negatively related to change-inducing variables, indicating that trust of objects or beings beyond community borders is, as might be expected, positively related to the cosmopolite life style. This positive relationship is particularly evident in the case of trust of the interviewer. Are these two types of trust interrelated? Does a trust of localite objects preclude a trust of cosmopolite one, or are people who express cosmopolite trust capable of localite trust at the same time?[1]

Since within-community trust and beyond-community trust correlate oppositely with certain cosmopolite and demographic variables, we might expect an overall negative correlation between localite and cosmopolite trust items. However, in certain instances we expect that some individuals exhibit both localite and cosmopolite trust. The task at hand then, is first to examine the interrelationship of localite and cosmopolite trust, and second to explore and identify

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[1]The ease with which this question can be answered is somewhat hampered by the fact that in Phase II, where we found the clearest negative correlations for the localite objects, only local objects were included in the questionnaire. In Phase 2.5 these localite objects plus other items were included, but the correlations are not as clear. Item correlations for both Phases are included throughout the remaining of the chapter to test our hypotheses.

the characteristics of individuals who exhibit both types of trust sentiments.

Table 24: Intercorrelation of Two Types of Trust

Cosmopolite Trust Items (All from 2.5)	Localite Trust Items: Neighbor (Phase II)	Neighbor (Phase 2.5)	Majority honest II	Can Trust Majority of Relation	Can Trust Majority of Friends	Can Trust Others in the Community	Safe to Loan Money
1. Trust outsiders	.042	.058	.076	.321[b]	.367[b]	.425[b]	.123[b]
2. ACAR Supervisor	.053	.050	.060	.124[b]	.108[b]	.122[b]	.237[b]
3. Interviewer	-.140[b]	-.098[a]	.005	.051	.048	.076	-.047

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

Turning to Table 24 (intercorrelations of the two types of trust) we find an interesting phenomenon, in that the correlations support three distinct possibilities: (1) that localite and cosmopolite trust are positively correlated, (2) that they are negatively correlated, and (3) that they are not related at all. The evidence for a positive correlation between the two varieties of trust comes from the 2.5 data relating localite, within the community trust objects with "outsiders"

and the ACAR supervisor. In the case of the "outsiders", the question about trust of relatives, friends and others in the community immediately preceded the question about trust of outsiders in the interview schedule, and might have set the respondents to respond affirmatively or negatively, depending on their responses to the other items. We note that the most reliable question relating to localite trust, trust of neighbors, in both Phase II and 2.5 does not correlate significantly with trust of outsiders. Nonetheless, the lack of negative correlations between cosmopolite trust (when we take the ACAR relationship as our main criterion) and localite trust objects may lead to a belief that there is a general trust sentiment in the respondents, that is, an individual who trusts localite objects is also likely to trust cosmopolite objects.

The negative correlations between localite trust items and trust of the interviewer may, however, give us a more accurate indication of the actual relationships between within-community trust and beyond-community trust sentiments, as our respondents may not have perceived the ACAR supervisor or the vague "outsiders" referred to in the general question as true outsiders. The interviewer is a far more concrete example of a true stranger, and the feelings with respect to this individual may give a more accurate reading of the beyond community trust concept (it usually gives the strongest correlations with other manifestations of cosmopolite orientation). Returning to Table 24, we find two statistically significant negative correlations which indicate that a person who trusts the interviewer probably does not trust his

neighbors, and contrarily the person who trusts his neighbors is less likely to trust the interviewer.

The opposing findings we have presented suggest that individuals may have basic trust orientations which influence their attitudes towards others. Some basic trust types come to mind: (1) a general trust orientation of all objects whether familiar or strange, (2) a trust of the familiar, but not the unknown, where the familiar might lie within or outside the community and (3) no trust of anything or anyone. To isolate any trust types that may exist in the sample, we propose to cross tabulate the two best indicators of neighbors trust and outsider trust, the Phase II item referring to trust of neighbors and the Phase 2.5 trust of interviewer items. To accomplish this cross tabulation, we combine the data collected from both phases for those 315 individuals interviewed in both waves.[1]

Our previous analysis of localite and cosmopolite trust in relation to other variables indicates that the localite trusting person tends

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[1]The typology is obtained by combining the dichotomy of trust or distrust of neighbors with the more or less median split on trust of the interviewer (which was measured on a seven point scale with 30 percent of the sample categorized in most distrusting categories and 62 percent in the two most trusting categories). One possible drawback to this procedure is our use of data from two data gatherings separated by nearly one year. The information on trust of neighbors comes from Phase II while the measurement of trust of interviewers derives from Phase 2.5. However, since we are speaking of general orientations that should not change radically over a period of only one year, the error should be slight. Moreover, the negative relationship between these two variables is as one would predict, if slight. This analysis, therefore, concerns only the 315 people for whom we have Phase II <u>and</u> 2.5 data.

to be localite in other orientations.[1] In terms of our typology, a true local would be an individual who expresses trust in his neighbors (indicator of within community orientation), while rejecting the outside world by showing a relative distrust of the interviewer (indicator of beyond community orientation). Similarly, a cosmopolitan truster would be one who rejects the community by expressing a trust of outsiders. The intermediate types would be those who trust neither neighbors nor outsiders, the misanthropes, and those who trust both neighbors and outsiders, the optimists. Table 25 shows how these four types are formed and the frequency of their occurrence in our sample.

Table 25: Types of Trusting Orientations and Their Frequency of Occurrence

		Neighbor (Insider)	
		Trust	Distrust
Interviewer (Outsider)	Trust	"Optimist" n=129	"Cosmopolitan" n=70
	Distrust	"Local" n=90	"Misanthrope" n=26

The absolute frequencies with which these four types appear, of course, depend on the way that we dichotomize the "interviewer" variable,

[1]Localite orientations being: few if any trips outside the community, little contact with the extension agent, and low exposure to the various mass media.

since it is not by nature dichotomous. The relative frequencies are suggestive of the importance of the types in the population at large. The person who does not trust anyone, the misanthrope, is the least frequent type, while the optimist is most frequent. The local and cosmopolitan trusters are practically equal in frequency. The high incidence of optimists certainly seems to contradict the gloomy picture painted by those who assert that rural communities are strife ridden and exhibit a great deal of mutual distrust as well as an overriding distrust of outsiders. The optimist is, after all, the most frequent personality type in our sample, at least as we have constituted the measures of the different trust orientations.

The Relationship of the Four Trust Types to Cosmopoliteness

Expecting that the four trust types would vary on the degree of their exposure to cosmopolite forces (in accordance with our basic contention that trust is a partial manifestation of the localite or cosmopolite orientation), we attempted to rank the four types on their beyond community exposure, using such indicants as trips to the city, mass media exposure, literacy and education.

Naturally we would expect the local truster to rank lowest in average exposure to cosmopolite forces, with the cosmopolitan truster ranking highest on average, beyond the community exposure. Ranking the two intermediate types is a more difficult task.

In an earlier discussion we speculated about how trust might be affected by change. Assuming that the initial situation was a relatively stable one, such as would be the case in a traditional society by

definition, one might argue that the typical personality in such a situation would be the local truster. Such a person, if exposed to ways of life quite different from his own, would tend to draw away from his community and begin to incorporate the new ways. The transition would be, however, a relatively painful one if the change were particularly rapid. Such an "overexposed" individual would possibly lose both his integration with the traditional community and at the same time not be able to establish ties with the new society beyond the community's borders. Such a person with substantial exposure to the outside world would be the misanthrope according to our typology.

The optimist may be the product of an ability to retain one's ties with the community while provisionally accepting the outside world. Such an accomodation might result from a somewhat less concentrated exposure to the outside world than in the case of the misanthrope. In terms of a ranking on cosmopoliteness, we would expect the optimist to rank lower than the misanthrope. The local would rank lowest, and the cosmopolitan would be the most oriented to the outside world of the four types.

To test these notions[1] we calculated the mean value for the various cosmopolite variables. Table 26 shows these means for the four trust types.

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[1]We have argued that the process of change leads to the creation of these types, other than the local truster who is the original traditional person. An alternative approach is to argue that these four personality types exist in any society, even a traditional one; they merely respond differently to cosmopolite influences. In this view the optimist, as an overall truster is likely to maintain ties with both localite and cosmopolite forces, making his exposure to the outside world higher than the local but lower than the cosmopolitan. Trusting

Table 26: Mean Cosmopolitaness for Four Trust Types Across Various Cosmopolite Variables

Variable	Type: Local	Optimist	Misanthrope	Cosmopolite	F	Significance level for F across types
1. Trips to city	4.07	6.21	10.96	8.94	2.191	.086
2. Residence outside	.37	.44	.50	.57	1.183	.316
3. Newspaper exposure	1.69	1.90	4.15	7.13	9.600	.0005
4. Radio exposure	1.93	2.13	2.31	2.41	4.056	.008
5. Television exposure	.33	.32	.65	.80	16.778	.0005
6. Cinema exposure	.87	1.31	1.12	4.10	3.064	.028
7. Literacy (Functional)	21.22	24.57	28.58	36.45	6.644	.0005
8. Education (years)	.87	.96	1.07	1.28	4.697	.003

Differences among the means reach statistical significance at the .03 level of probability or beyond on six of the eight indicants of cosmopolite

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no one, on the other hand, the misanthrope is not likely to rely strongly on local ties. Since no one is to be trusted, the new, the outside, the strange, may be more intriguing than the familiar. Not trusting the outside world, but at the same time having no alternative, the misanthrope may be attracted to cosmopolite forces thereby ranking second in average exposure to the world beyond his immediate community.

influence (trips to the , outside the community being the exceptions).

Except in the capacity and T V exposure, our hypothesized ranking of es also holds. In the case of T V exposure, the proves (a difference of .01) of the local and the optimist significant than the order reversal. Perhaps the relative rarin rural areas effects its discriminatory power in The local and optimist are much lower in their frequency various mass media than the misanthrope and especiah. Perhaps these differences in exposure to the varictive of similar differences in levels of literacy arrepare the individual for utilizing the various of the four types on literacy and education follows tha exposure.

The overall trends which we have grouped under the heading of "cosmopolear; our ordering of types, which are defined in terust of objects from inside and from outside the communons as to the influence of cosmopolite factors on change of trust. The local individual who trusts his ncommunity while at the same time distrusting outsiders, kely person to take trips outside the community, the leasne newspapers frequently, to listen often to the radio, to e least likely person to be able to read and write, and er levels of education.

The optimist whghbors and outsiders and is found most frequently is slightly more exposed to

the outside world through the mass media than is the local type. His generally trusting outlook is compatible with his limited exposure to the outside world; he accepts this world to a limited extent and at the same time maintains his ties with the community.

The misanthrope, who trusts no one, and who is the least frequent personality type in our sample, exposes himself to the outside world more than either the pure localite or optimist. Perhaps the extent to which he involves himself in the outside world while submerging his feelings of trust for his neighbors does not allow him to accomodate the new while rejecting the old. He is sufficiently fascinated by the new outside life to break his community references, but at the same time he cannot accept such a world.

The cosmopolitan is most open to the outside world in terms of his trust of outsiders; he expresses this dependence by seemingly rejecting his ties to the community. This person relies on the outside world for information and guidance in his personal life; he lives in the community physically but in the outside world intellectually and emotionally. His distrust of his neighbors within the community signifies his cutting of ties in the community, which, coupled with his trust of outsiders, examplifies the extent of his reliance on people and ideas beyond the community.

The higher literacy level and education of the cosmopolitan truster may be factors influencing his greater capacity to function in accordance with outside guidance, while the lesser levels of literacy and education attained by the locals, optimists, and misanthropes may

in some ways act as barriers to reception of information from outside sources.

Relative Social Positions of the Four Types

In order to clarify the relative social positions of the four types, mean age, level of living, income and size of farm for each type are presented in Table 27. We see that the local is indeed the

Table 27: Mean Age and Wealth Levels for Four Trust Types

	Type					
Variable	Localite	Optimist	Misanthrope	Cosmopolite	F	Significance level for F across types
1. Age	44.51	41.30	43.08	47.17	2.315	.040
2. Level of living	8.53	9.75	11.62	14.68	13.170	.0005
3. Income (category)	2.18	2.75	2.31	3.61	8.114	.0005
4. Size of farm	28.60	43.29	48.62	104.80	8.119	.0005

economically poorest of the four types. The optimist and misanthrope are slightly better off, but still rank below the cosmopolitan on all our economic measures. While the misanthrope appears to be slightly better off than the optimist with respect to level of living and size of farm, the income of the optimist is very slightly more than that of the misanthrope.

The cosmopolitan type is older than the others and in general has a higher level of living, higher income and a larger farm. He tends to be more established financially and probably more self-assured. He has the economic freedom which permits him to travel and purchase the various media that channel information into the community.

The fact that the cosmopolitan is substantially older on the average than the other types goes somewhat contrary to notions that the younger person is more likely to be searching the outside world for new opportunities. Perhaps the young person who is also a farmer is tied to the farm more closely until he is economically able to step outside his immediate situation in the community. Since our sample is limited to farm operators, we did not interview those younger people without ties to the land who might be a great deal more cosmopolitely oriented than the older, rich farmer. For our sample, the cosmopolitan is older and richer than the other types.

With such an ordering of types, one is tempted to posit the direction of economic development in terms of personality development. We first assume that the original situation was one where the local was predominant while the end result of development is the predominance of the cosmopolitan. We posit that the local truster begins with a trust of his neighbors and a lack of trust of outsiders; he then has some exposure to the outside world, either through travel or exposure to the mass media. On the condition that this exposure to the outside world is slight and limited, the individual develops an acceptance of it while maintaining his ties with the community. If, however, the exposure is rapid and in large doses, the individual may decide that rural

life is poor compared to the opportunities outside; but, at the same time, his unfamiliarity with this new world along with his sudden submersion in it does not allow him to accept it emotionally. Thus, the misanthrope emerges; he rejects the community and is at the same time not able to accept the outside world. The cosmopolitan however, somehow resolves the dilemma in which the optimist and misanthrope find themselves by rejecting the community and accepting the outside world. He probably retains certain ties in the community because of his wealth and economic importance, but his reference group lies beyond its borders.

Relative Participation of Four Types in Community

These observations raise the question of how the four types differ in their actual participation in the life of the community. Data on the number of community improvement projects in which the respondents participate as well as their self reported activities of helping others in the community will help us examine this question. The participation in community improvement projects was measured by the following question: "During the past year, have you heard of any projects to improve the community? If so, have you participated in them?" The responses were coded in terms of how many the respondent had heard about and if he had participated in any way in them through a donation of labor or money. In our sample (from Phase 2.5) 64 percent had neither heard nor participated in any such project while 30 percent had heard of at least one project and participated in it. Pertaining to help of others in the community, the question was: "In the past year what kind of help have

you given your friends: aid in farming, loaning of money, loaning tools and/or aid when sick?" We also obtained the general frequency with which this aid was given. Table 28 shows the means of these two variables for the four trust types. The cosmopolitan perceives himself

Table 28: Mean Frequency of Participating in Community Improvement Projects and Giving Aid to Friends for Four Trust Types

	Type					
Variable	Local	Optimist	Misanthrope	Cosmopolitan	F	Significance level for F across types
1. Improvement projects	.68	1.16	.96	1.44	3.105	.022
2. Mutual aid	5.78	7.07	4.15	6.46	3.267	.016

as participating in more improvement projects than the other types. Perhaps, he is trying to bring what he thinks to be better from the outside world to fruition in the community. His economic standing in the community may also play a role here. While he does not feel a solidarity with his neighbors, he tries to bring the community along to what he considers a better life. He may do all this by taking advantage of his greater information about what constitutes a better life, as well as his greater economic capacity to bring these ideas into existence.

The optimist is the next most frequent participator in the community improvement projects; his partial orientation to the outside

world as well as his remaining orientations to the community make him an ideal cohort of the cosmopolitan, who has an even greater orientation to the outside world and an awareness of its advantages.

Oddly enough the misanthrope exceeds the local in participation in community improvement projects; one might expect that such a person would have little to do with anyone. Perhaps his perception of these improvements as bettering his own rather high standard of living, motivates him to give of his labor or wealth to such projects. The local probably has little appreciation of and even less capacity to accept these notions.

The optimist exceeds the other types in the giving of aid to others. His trust of his nieghbors as well as his acceptance of outsiders is consistent with a "giving" personality type. Also in line with our sketch of these personality types, the misanthrope gives the least aid on the average of the four types. Probably deriving from his greater economic capacity to give, the cosmopolitan ranks just below the optimist in help to friends. The local ranks just below the cosmopolitan. This ranking of types again gives further support to our notions of the general psychological nature of these four types.

Political Knowledge, Empathy and Achievement Motivation of the Trust Types

The same process that help develop the four trust types may also be reflected in variables such as political knowledge, empathy and achievement motivation. Knowledge of state and national political events

are fed into the community mainly via mass media. The cosmopolitan should, therefore, know more of politics, with the other three types following along.

In the attitudinal area, we might expect that empathy with roles outside the community would also depend on cosmopolite influences (Lerner, 1958). Actual experience in the outside world helps the individual to imagine how to operate in it.

The motivation to achieve may be more in evidence in the more modern, economically oriented community than in traditional settings. The cosmopolitan, who is more open to the modern world, may exhibit more achievement motivation than the other types. Table 29 has the mean values for these three variables across the four trust types. The measurement of these concepts was discussed earlier (see Chapter IV).

Table 29: Mean Political Knowledge Score, Empathy Level and Level of Achievement Motivation for the Four Trust Types

	Type					
Variable	Local	Optimist	Misanthrope	Cosmopolitan	F	Significance level for F across types
1. Political knowledge -5 item scale, Phase II)	.89	1.14	1.35	2.39	14.527	.0005
2. Empathy (4 item scale Phase 2.5)	2.87	4.26	3.08	4.80	8.702	.0005

Table 29 -- Continued

Variable	Type: Local	Optimist	Misanthrope	Cosmopolitan	F	Significance level for F across types
3. N-Ach (5 item scale, Phase 2.5)	3.21	3.53	2.96	3.37	1.992	.113

The cosmopolitan exhibits more political knowledge and empathy than the other three types: for achievement motivation, no significant differences among the four types emerges.

For political knowledge, the order of the types remains. The progressively more cosmopolitan types exhibit more knowledge of political events and figures on the state, national, and international level. The progressively greater participation of the four types in the channels of communication leading into the community is reflected in their progressively greater knowledge of this outside world and what occurs in it.

In the case of empathy, the cosmopolitan exhibits the highest empathy of the four types as hypothesized. The optimist is next in line, however, which is in accord with the optimist's presumed orientation toward the outside world and his partial acceptance of it. The misanthrope with his suspicious attitude toward everyone still has a higher empathy level than the local, who is much less knowledgeable of the outside world though equally unaccepting of it. In general these results are quite in accord with the natures of the four types, with the optimist

being most similar to the cosmopolitan where some acceptance of the outside world is implied, but active participation and knowledge of it is not required.

Innovativeness and Opinion Leadership of Trust Types

The degree of innovativeness and leadership of the four trust types if of interest. If most new ideas in agriculture are developed in areas external to the life of the community, we might expect that the awareness of these innovations would follow the general cosmopolite pattern. The more cosmopolite types, therefore, would be aware of these new practices sooner than the localite types. In turn, given the economic ranking of the types, the cosmopolitan trust type is likely to turn this earlier awareness of innovation into earlier adoption of them.[1]

The order of the three less cosmopolite types as to their general innovativeness may not be so simply determined. Many studies have shown that as the individual becomes more serious in his considerations as to actual adoption of a practice, personal advice from friends and neighbors becomes more important (Rogers, 1962). Thus, the two types that exhibit a general trust of others within the community, i.e. the local and optimist, might be more open to this personal influence than the misanthrope who has closed himself off from the community. We may expect that the misanthropes would be least innovative and the cosmopolitan most innovative; the other two types would fall between these poles.

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[1]Our measure of innovativeness is the average earliness of adoption of 8 to 12 innovations from Phase II.

We can consider leadership as partially depending on a trust relationship between the leader and follower, where the latter perceives the leader as trustworthy. We note that this relationship need not be mutual, that is, the leader need not have trust in the follower for the leader to exercise his leadership function. The question then becomes what type of person would be most likely perceived as trustworthy in the eyes of the farmer respondents with respect to agricultural matters. The measure of opinion leadership is a sociometric one which derives from a question asking each respondent who in the community was most agriculturally imitated.

Our categorization of trusters is made on the basis of how much or little the respondents trust others, and not on the basis of how much they are trusted; therefore, it is difficult to imagine which of these trust types would be most trusted in a rural community. Possibly the trusted individual would be the most educated, the one with the most experience with new ideas, the individual who has actually tried many innovations. Such a person most nearly fits in our cosmopolitan type. His own orientations, however, would seem to mitigate against his exercising a leadership function in the community; he himself is set apart from the community. However, the cosmopolitan participates strongly in community improvement projects, which may indicate more leadership potential for the cosmopolitan than the other types. Table 30 presents the data on innovativeness and opinion leadership.

Our general expectations relating to the relative innovativeness of the four types are supported in the data. The cosmopolitan is indeed

Table 30: Mean Innovativeness and Opinion Leadership for Four Trust Types

Variable	Type				F	Significance Level for F Across Types
	Local	Optimist	Misanthrope	Cosmopolitan		
1. Innovativeness	13.19	15.35	12.27	28.06	6.605	.0005
2. Opinion Leadership	48.36	50.21	51.81	55.73	5.441	.001

the most innovative type. The misanthrope who is relatively closed to influence from both the community and the outside world as reflected in his trust orientation is the least innovative; he also may be generally less inclined to take such risks as these involved in the adoption of innovations. The local, however, who has little direct experience with new ideas as they flow into the community, is very close to the misanthrope in terms of innovativeness. The optimist is slightly higher than these two less innovative types, which is indicative of his relative openness to influence from the outside world. The cosmopolitan has an innovativeness score which is almost double that of the nearest type, which indicates the extent to which innovations enter the community from exterior sources. The cosmopolitan being highly oriented to these sources, is presumably the first to hear of new practices, and, since he is economically well off, is the first to translate this awareness to actual use of the innovations. The misanthrope indeed has the lowest

innovativeness score, which supports the argument that a distrustful person is not open to the influences that encourage the adoption of new practices.

The data show the cosmopolitan as the strongest community opinion leader on agricultural matters. He may achieve this distinction by having experimented with innovations before anyone else and thereby having his early acquired knowledge of these practices increased with practical experience.

The fact that the misanthrope has the next highest leadership score, however, leads us to believe that this process of acquiring the allegiance of others is not universal, and that for some farmers, at least, the individual need not have actually tried the practice earlier than other farmers to achieve their allegiance. Perhaps the misanthrope's reluctance to try new ideas earns for him a reputation of being absolutely sure of an innovation before he adopts it. Where the cosmopolitan may be the true innovator, the misanthrope would be a person hard to persuade as to the innovation's advantages. Once such a skeptical person is convinced of a practice's value, his opinions about that practice might be given higher weight by certain farmers than the opinions of the rapid adopter like the cosmopolite. Also, the misanthrope would be a knowledgeable person because of his relatively high exposure to the outside world, and would at the same time be economically closer to the majority of the farmers, since he is not as well off as the cosmopolitan. If an innovation is right for the misanthrope, it is right for other farmers as well. Apparently these trust orientations help isolate two leadership types: the traditional leader and the modern leader, both important to the general process of social change.

The optimist has a slightly lower opinion leadership score than the misanthrope and the local receives the fewest nominations for leadership of the four types. The optimist is the second most innovative type. Although he tries the innovations relatively early, he may be judged as too accepting of things he knows little about, an thereby not exercise much leadership. The local truster is too poor, little educated and not knowledgeable enough to experience much influence over the opinions of other farmers.

Summary of Trust Typology

We began this chapter by considering the conjunctive relationship of two types of trust: trust of one's neighbors within the community, and trust of outsiders as exemplified by trust of the interviewer. We found these two types to have a significant negative relationship, but not so large as to preclude our consideration of the conjunctive effects of these two types. When we created a fourfold typology using these two brands of trust jointly, we labeled the types as (1) the local who trusts his neighbors but distrusts outsiders; (2) the optimist who trusts both his neighbors and outsiders; (3) the misanthrope who trusts neither his neighbors nor outsiders; and (4) the cosmopolitan who distrusts his neighbors but tends to trust outsiders.

These four types of trusting behavior seem to fall along a general localite-cosmopolite continuum according to the mean exposure that each type has to the outside world either through travel, education, or exposure to the mass media. Such a conclusion supports our earlier contentions that each variety of trust correlates differently with

cosmopolite variables; trust of neighbors is a localite orientation while trust of outsiders is a cosmopolite orientation. The existence of these types also helps account for the generally low zero order correlations of the two trust orientations considered separately.

This ordering of trust types along the cosmopolite-localite continuum is basically maintained when one looks at the relative wealth of each category; the local truster is the poorest and the cosmopolitan is the richest; the other two types fall in order between these two poles.

The ordering is not maintained for the average age of the respondents in each trust type. The cosmopolitan type is the oldest while the optimist is the youngest on the average. The misanthrope and local have nearly equivalent average ages. It may be a function of youth that the optimist is able to accept both insiders and outsiders, while it is probably a joint function of age and wealth that creates the self posession of the cosmopolite to be oriented almost exclusively to the outside world.

Pertaining to participation in community life, the optimist and cosmopolitan are more likely to participate in community improvement projects than the misanthrope or local, and also are more inclined to give aid to their friends in the form of help in farming, loan of money, tools, and aid in time of sickness.

The local, optimist, misanthrope, and cosmopolitan exhibit progressively greater knowledge of the outside world in terms of political events and figures at the state, national and international level.

Apparently their progressively greater exposure to the mass media and travel experience enable this knowledge to develop.

The cosmopolitan and optimst are more empathic with outside figures and roles than are the misanthrope and local. Since the misanthrope has high outside exposure, his lack of empathy indicates that empathy may not develop linearly with media exposure or travel. Rather empathic ability may be dependent on the quality of experiences the individual has and his resulting general trust of insiders and outsiders. No significant differences were found among the four types in terms of their achievement motivation levels.

The differences of the four types pertaining to innovativeness and opinion leadership lead to the observations of (1) the very high average innovativeness score of the cosmopolitan and the very low innovativeness score of the misanthrope; and (2) the fact that these two types have highest opinion leadership scores. The cosmopolitan is much more innovative in terms of his early adoption of new ideas than any of the other types, which shows the importance of an exterior orientation for the reception of new ideas. However, the fact of being highly innovative does not give the cosmopolitan absolute powers of influence in the community. The misanthrope is a <u>traditional</u> leader, since he is least innovative but ranks second only to the cosmopolitan in leadership activities.

CHAPTER VI

TRUST OF THE ACAR SUPERVISOR

This chapter explores a specific object of trust for the farmers in the sample, the ACAR supervisor. In particular the chapter deals with farmers' trust of the supervisor (or extension agent) as related to the frequency of their conversations, the farmer's evaluation of the supervisor's work, and the adoption of practices the supervisor recommends.

Phase 2.5 provides the data from 315 interviews for this discussion. All measures took the form of direct questions with both structured and unstructured responses. Two questions dealt with the contact the farmers had with the local ACAR supervisor, one relating to the contact they had in the community itself, and the other to the contact in the supervisor's office in town. These two measures are correlated .66, which indicates that when an individual has substantial contact with the supervisor in the field, this contact is also high in the office, and vice versa. Apparently, there are few supervisors that concentrate their working time either in the office or in the field, at least as far as meeting with farmers is concerned. Pertaining to the evaluation of the supervisor's work is one question, "During the last year do you think the ACAR supervisor...didn't do his job, did it more or less well, did it well, or did it very well." Approximately 65 percent responded that they felt he had done his job well or very well.

The independent variable of empathy was measured by asking each respondent what he would do if he were the ACAR supervisor. The interviewer coded the responses according to the degree of specificity and role knowledge that the response exhibited. Desire for greater contact with the agent was measured by the question, "Would you like to talk more frequently with the ACAR agent or are you satisfied with the amount of contact you already have." Fifty percent responded that they would like more contact with the agent.

Trust of the agent was measured with three questions: (1) "In your opinion, is the ACAR agent really concerned about farmers' problems?" (2) "Can people trust the ACAR agent?" and (3) "When the ACAR agent talks about agriculture, is he wrong...almost always, many times, (no response), a few times, or never?" The response pattern is fairly similar for all three items with 43 percent responding in the most positive category for the first and third items and 50 percent choosing the most positive category for the second item. The intercorrelations of the three items is shown in Table 31.

Table 31: Intercorrelations of Three Trust of ACAR Items in Phase 2.5

	1	2	3
1. ACAR concerned			
2. ACAR trustworthy	.391[a]		
3. ACAR seldom wrong	.207[a]	.432[a]	

[a]Significantly different from zero at the .01 level.

In succeeding factor analyses containing these and other items, these three items always load on the same factor, with loadings never below .59. Thus, we can be relatively sure that they reflect an underlying dimension which we choose to call "trust of the ACAR supervisor". Once this decision is made, we can choose to combine the three items into a single index. However, since we would like to see how each item is related to various phenomena as well as the total score, we will often refrain from hiding the individual items in the total score. When we speak of trust in general, we will use the sum of the three items.

A principal hypothesis of this chapter is the "barrier reduction" function of interpersonal trust in interpersonal relationships. We argue that trust facilitates contact and conversations, in this case between the farmers and the ACAR supervisor; the two phenomena should be correlated at a given point in time. Table 32 shows the relevant correlations.

Table 32: Correlations of Trust of ACAR Supervisor and Contact with Supervisor

	Contact in Community	Contact in Office
1. ACAR concerned with farmers	.227[a]	.213[a]
2. ACAR trustworthy	.210[a]	.163[a]
3. ACAR seldom wrong	.165[a]	.135[a]

[a]Significantly different from zero at the .01 level.

Although the correlations are low, they are all highly significant for sample of 315. We conclude that there is a relationship between trust and contact. However, there may be other variables that filter this seemingly direct relationship between trust and contact. Since the relationship is quite probably interdependent, rather than trust directly causing contact or contact directly causing trust, a relevant intervening variable might be the evaluation of the agent's work by the farmer. Those who have high contact but at the same time a relatively low evaluation of the agent would have a lower trust of the agent than those with high contact but a high evaluation. To test for this possibility, we divided the sample at the median number of contacts with the ACAR supervisor during the past year, and subsequently divided the two subsamples at the median on evaluation of the agent. For each of these subsamples, the mean trust score was calulated, and Table 33 resulted.

Table 33 shows that there is some support for the notion that how the farmer evaluates the ACAR agent's work during the previous year, determines how much he trusts the agent. In particular, in those cases where mere contact with the agent is high, how the farmer evaluates the agent's work is crucial to his trust of the agent. This is especially true for items 1 and 2, which refer to how concerned he perceives the agent is with farmer's problems and how trustworthy he perceives the agent as being.

There is some evidence of an interactive effect for item 1, where for the high contact people, evaluation makes a greater difference in

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[1]Interaction of variables in this case means that one variable has different effects on another, depending on the level of a third, control variable.

Table 33: Mean Trust of ACAR for Varying Contact and Evaluation of ACAR

		Evaluation	Mean Trust Level for Three Items Item 1	Item 2	Item 3
Contact with ACAR	High	High	4.39	4.53	4.53
		Low	3.32	3.19	3.97
			t = 2.65[a]	t = 3.01[a]	t = 2.76[a]
	Low	High	3.74	4.29	4.40
		Low	3.18	3.28	3.49
			t = 5.32[a]	t = 1.05	t = 2.91[a]

[a]Significantly different from zero at the .05 level.

the trust score than for the low contact people. Since trust item 1 deals with the concern the agent has for farmers' problems, then those who have little contact might not know enough about the agent to say much about his concern with farmers. In fact 37 farmers in the low contact group responded "don't know" to item 1, while only 6 responded "don't know" in the high contact group. However, this pattern of numerous "don't know" responses in the low contact group extends to the other items as well, with the ratio being 35 to 5 for item 2, and 39 to 6 for item 3. For these items the interactive effects is not operating as strongly. Perhaps the difference lies in the content of the items

where perceived concern is more highly related to being perceived as doing a good job than perceived trustworthiness.

The next step in the analysis is a discussion of innovativeness as the dependent variable, with trust, contact, evaluation, empathy and desire for greater contact with the agent as independent variables. The inclusion of several variables along with trust enables us to evaluate the relative importance of empathy, contact, evaluation and trust of the agent to the adoption of new practices. The zero-order correlations of these independent variables with innovativeness[1] are shown in Table 34.

Table 34: Zero-Order Correlations of ACAR Related Variables with Innovativeness

	Correlation with Innovativeness
1. Trust of agent (sum of three items)	.090
2. Contact with agent in community	.070
3. Evaluation of the agent's work	.024
4. Empathy with the agent	.172[a]
5. Desire to (see more) of the agent	.004

[a]Significantly different at the .05 level.

[1]Innovativeness is the average relative earliness that the individual adopts a series of practices. In this analysis, five practices were used for the whole sample; each year of adoption was standardized across the whole sample for each practice, and the five standardized scores averaged to form the final index.

Only empathy correlates significantly with innovativeness. The multiple regression equation utilizing all of these variables to predict innovativeness yields a multiple R of .198, indicating that the composite of all these independent variables co-vary 3.9 percent with innovativeness, which is quite low.

Nonetheless, we are able to evaluate the relative importance of the independent variables in predicting the adoption of practices by progressively eliminating the variables that co-vary least with the independent variable. As might be guessed from the size of the zero-order correlates, all of the independent variables except empathy drop out of the final equation, with the multiple R also dropping to .172. Thus, trust of the ACAR supervisor seems to be of less importance to adoption than is empathy. On the chance that the individual trust items might function better than a cosmopolite score, we repeated the regression equation. The farmer's perception of how concerned the agent is for the well-being of the farmer does about equally well (or poorly) as the composite trust score by lasting through the deletion process until well-being and empathy are the only two variables left as predictors of adoption. The multiple R at this step is still only .198, and in fact, the well-being item has a relatively insignificant partial correlation with adoption when empathy is removed, so that the final regression equation again drops this trust item.

Perhaps one of the reasons for not having higher correlations of trust with adoption is the necessity for using an innovativeness score composed of only five items. Also, the decision to adopt practices

occurs over a number of years, but we know that three of the ten ACAR supervisors had left their field posts between the Phase II and 2.5 data-collections. The trust judgement of a supervisor in Phase 2.5 may, therefore, be little related to the adoption of practices in the past, since the agent who might have recommended these practices had left the area. The lack of a high correlation between contact and innovativeness is somewhat puzzling since this correlation is frequent in other studies (see the Brazilian Phase II report, in process). All these considerations bring into question the adequacy of the measurement of innovativeness in Phase 2.5, and the propriety of linking innovativeness with trust through a single interview, since the agents rarely stay in a given area for any great time. Perhaps a measure of the individual's acceptance of ACAR's programs introduced in a short time period with one agent in control would allow an adequate measurement of this relationship. However, such is not the situation in Phase 2.5. We note that the high correlation of empathy with adoption could be free of this time factor and the problems of moving supervisors, since the question is more role related and less tied to the object person than is trust. The correlation of empathy with innovativeness suggests that the more empathic or imaginative person tends to adopt practices earlier. The relative strength of empathy as a predictor of behavior indicates that attitudinal and personality variables may be worth further investigation.

In concluding this section on trust, empathy and other ACAR-related variables, we have drawn support for the following hypotheses:

1. Trust acts as a "barrier reducer." There is a positive correlation between trust of the ACAR agent and contact with the agent, both in the community and in the agent's office.

2. Evaluation of the agent's previous work helps determine a judgement of trust, thereby giving support to the hypothesis that trust will be higher for a positively rewarding experience than for less rewarding experiences.

3. The hypothesized relation between trust and the actual acceptance of the trusted source's messages is not supported in this study; there is no apparent relationship between the adoption of practices and trust of the agent. Qualified support for this hypothesis comes from one trust item's significant correlation with adoption. However, empathy with the agent proves to be a much stronger predictor of adoption than any of the trust items individually or in combination.

CHAPTER VII

COMMUNITY TRUST LEVELS

Earlier chapters showed that trust may act as a cosmopolite or localite orientation for individuals in a rural setting, and how these individuals could be categorized into four trust types. The correlates of ACAR trust showed how trust may reduce barriers in interactions between individuals. We now return to the Brazilian context to examine how community trust or distrust is related to other characteristics of the 20 communities in the Phase II sample.

This task requires that we have some means of describing each community as a whole for a series of variables. To this end we have two sources of data on the 20 communities: (1) observations on community characteristics made by the ACAR supervisor and selected leaders in the area, as well as data on these leaders themselves which come from Phase II of the project; and (2) data from individual interviews with all farmers in the 20 communities, which are aggregated to the community level. Both sources of data usually involve an aggregation procedure and the calculation of some descriptive statistic such as a percent, median or mean for the group of respondents representing the community.

The description of the Phase I methodology is contained in Appendix A. In brief, data were gathered in January of 1966 on 76 communities from interviews with the ACAR supervisor, county or municipio leaders

and leaders of the community. The Phase II data come from a virtual census in June, 1966, of farm operators in 20 of these 76 communities. To make the two sets of data comparable, only those 20 communities on which we have both Phase I and Phase II data will be considered in this study.[1]

The procedure in this chapter will follow that of previous chapters by examining the two different types of trust as exhibited by the community as a whole. The basic difference is that in this chapter we speak of the trust level of the community as pertaining to neighbors and outsiders.

Cosmopoliteness and Trust

In the earlier analysis of individuals, the focus was heavily upon mass media exposure and contact with the ACAR supervisor as indicants of cosmopolite influences. Following these leads we calculated various summary statistics for all respondents in each of the 20 communities pertaining to the community's mass media exposure and ACAR contacts. In addition we calculated an "external contact" measure for each community based on the presence or absence of various media of communication (see Appendix C for a discussion of this cumulative Guttman scale). These measures constitute our cosmopolite variables at the community level of analysis.

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[1]For a more complete report of these Phase I data see Gordon Whiting(1968)

The measures of community trust of peers derive from two attitudinal items in the questionnaire. The first is the proportion of respondents who said they trust their neighbors rather than consider them as untrustworthy. The second measure is the proportion who believe the majority of people are honest. The first measure, as we observed earlier, is the more reliable questionnaire item. Both of these measures refer to trust of peers or neighbors.

Deriving a measure of trust of outsiders is somewhat more difficult, since we are limited to the Phase II data where no direct measure of trust of outsiders was used. However, one question asked each respondent to choose one of two "sources" that the respondent trusted more for information in relation to agriculture. The actual question was, "Whom do you trust more when it comes to new ideas about farming in general?" A series of possible "sources" were then paired for the respondent and he chose one of each pair. "Neighbor" was always one of these sources and was paired against "newspaper," "radio" and "agronomist."

Five trust variables at the community level come from this "paired comparison" question. Three of those variables are the simple proportion of those respondents who chose the newspaper, radio and agronomist for each of those pairs where neighbor was the other alternative. The fourth trust variable is the proportion of respondents in the community that <u>never once</u> chose "neighbor" in these three comparisons; this variable is designed to provide a general measure of "trust of outsiders". The fifth variable is the proportion choosing neighbors in comparison with the

agronomist,[1] a check on the attidudinal "trust of neighbors" items. The intercorrelations of these various measures of trust, both of peers and outsiders, are shown in Table 35.

Table 35: Intercorrelation of Various Measures of Community Trust Levels

Trust Variables	1	2	3	4	5	6
A. Trust of Peers						
1. Trust neighbors						
2. Most people honest	.415[a]					
3. Trust neighbor over agronomist	.512[a]	.102				
B. Trust of Outsiders						
4. Trust radio over neighbor	-.274	.117	-.565[b]			
5. Trust newspaper over neighbor	-.339	.072	-.620[c]	.781[c]		
6. Trust agronomist over neighbor	-.429[a]	.266	-.817[c]	.541[b]	.483[a]	
7. Always trust outside sources	-.467[a]	-.289	-.565[b]	.635[c]	.743[c]	.241

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

[c]Significantly different from zero at the .005 level.

[1]This proportion is almost the reverse of the proportion that chose the agronomist; the number of "don't knows" prevents these two proportions from adding to 100 percent.

Table 35 shows that in general the trust of peers measures correlative positively with one another, significantly so in two out of three cases. The measures of trust of outsiders also correlate positively among themselves, significantly so in five out of six cases. The correlations between these two sets of measures are, as might be expected generally negative, with all of the statistically significant correlations being negative. These results support the measurement which was done, since two fairly different methods of measurement were utilized and yet both give similar rankings of the 20 communities. Of the attitudinal items, the "trust of neighbors" measure gives more significant correlations than does the "most people are honest" item; of the paired comparisons, that between the agronomist and neighbor gives generally higher correlations.[1]

Table 35 shows the correlations of: (1) the two attitudinal measure of trust of peers; (2) the paired comparison item indicating a trust of neighbor over the agronomist; (3) the four measures of "trust of outsiders" derived from the paired comparison; and (4) the six indices of cosmopolite contacts.

The two items giving the most consistent and significant correlations with the cosmopolite variables again are the attidudinal questions about trust of neighbors and the paired comparison between the agronomist and neighbor.

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[1]If need be, we can take these two measures as indicants of their respective concepts (trust of peers and trust of outsiders) keeping in mind that they are themselves correlated.

Table 36: Intercorrelations of Community Trust and Cosmopolite Variables

Trust Measure	Cosmopolite Measures: External Contact	Newspapers	Radio	Television	Cinema	Contact with ACAR
A. Trust of Peers:						
1. Trust of neighbors	-.634[c]	-.367	-.401[a]	-.704[c]	-.537[b]	-.236
2. Most people honest	-.103	.311	-.019	-.229	.145	.145
3. Trust of neighbor over agronomist	-.411[a]	-.268	-.676[c]	-.724[c]	-.008	-.511[a]
B. Trust of Outside Sources:						
1. Trust radio over neighbor	.224	-.198	.177	.231	-.231	-.081
2. Trust agronomist over neighbor	.195	.670[c]	.559[b]	.503[b]	.625[c]	.775[c]
3. Trust newspapers over neighbor	.169	.112	.236	.245	.285	-.011
4. Always trust outside source over neighbor	.273	-.181	.350	.246	.116	-.158

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

[c]Significantly different from zero at the .005 level.

In general, Table 36 shows that the more that a community exhibits trust of neighbors, the less exposure there is to the outside world - either through the mass media, through the ACAR supervisor, or through the contacts exhibited in the external contact scale. Contrarily, the more the community tends to trust the agronomist over neighbors, the more the community as a whole is exposed to the mass media and the ACAR supervisor.

The general conclusion reached using this community data is highly similar to our conclusions pertaining to the characteristics of individuals: trust of neighbors correlates negatively with cosmopolite variables while trust of outsiders correlates positively with these variables.

Profile of Trust Communities

In order to become more familiar with high trust and low trust communities, we now propose to consider variables other than the cosmopolite measures just discussed. The objective of this section is to present a profile of the trusting community in a manner similar to the profile of the trusting individual developed in earlier chapters.

Some of the variables that successfully distinguished the trusting individual from others might also be useful in distinguishing the trusting community from those less trusting.

As measures of trust, we use the attitudinal trust of neighbors item to measure one aspect of trust, and the paired comparison measure where farmers indicate trust of the agronomist over neighbor as a measure of trust of outsiders. These two measures help to check the consistency

of results and assure that the final profile is not a result of pure chance.

Education, Literacy and Political Knowledge

Education level in a community is the mean number of years of education reported for all respondents in the community. The literacy level is the proportion of people in the community who were able to read 40 or more words from a 50 word paragraph; the mean number of words read was not used as a measure of literacy since the variable was essentially bi-polar, with most of the respondents either being able to read all 50 words or none at all. Political knowledge levels are measured by the proportion of respondents who answered two questions about politics correctly. The questions asked, "Who is the govenor of the State?" and "What is the name of one political party created after 1964?"

These cognitive variables all should be related to cosmopolite factors. Education and literacy enable individuals to participate in the world of the written word. The more the community is educated and literate, the greater ease that cosmopolite forces can enter the community. Political knowledge, like trust, may be influenced by this invasion. Knowledge about politics depends on hearing about events and figures in the political arena; and, politics is a favorite topic of conversation in the mass media.

Since we expect a positive correlation of these cognitive factors with cosmopolite ones, we would expect that trust of neighbors should negatively correlate, and trust of outsiders should positively correlate,

with these cognitive factors. Table 37 shows the correlations of the cognitive variables with the measures of trust.

Table 37: Correlations of Trust, Education, Literacy and Political Knowledge Levels in 20 Communities

	Trust of Neighbor Attitude	Trust of Agronomist over Neighbor
1. Education	-.540	.613[c]
2. Literacy	-.648[c]	.578[c]
3. Political Knowledge		
a. Know Governor	-.724[c]	.525[b]
b. Know Political Party	-.634[c]	.422[a]

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

[c]Significantly different from zero at the .005 level.

Trust of neighbors correlates negatively with the cognitive variables; and as might be expected, correlations of these variables with trust of the agronomist (in comparison with neighbor) are all positive.

Provisionally, trust of neighbors appears to be accompanied by less education, lower literacy levels and less knowledge of political figures on the part of the community as a whole. Trust of the agronomist, an index of trust of outsiders, correlates positively with education, literacy, and political knowledge.

Innovativeness and Opinion Leadership

Two other variables that have been of importance throughout this study are innovativeness and opinion leadership. At the community level, a measure of the general propensity of a community to adopt agricultural innovations is simply the average adoption of recommended innovations. In the Phase II study, each farmer was asked if he has adopted a series of practices; he received a score based on the number of practices he had adopted out of those 10 or 12 practices recommended by the extension service. The average of these individual adoption scores is the community measure of innovativeness or the extent of practice adoption.

Opinion leadership refers to the number of sociometric nominations each individual receives from all respondents interviewed in the community. At the community level of analysis, the concentration of leadership in few or many hands becomes an important characteristic of the community power structure. Using the ideas that Wunderlich (1958) presented on land concentration, we calculated an index of community opinion leadership concentration for each community. This index is based on the distribution of leadership nominations within the community. A community in which one or two men receive the bulk of the leadership nominations has more concentrated leadership than a community in which eight or ten men receive the bulk of these nominations.[1] Table 38 shows the correlations of innovativeness and opinion leadership concentration with trust of neighbors and outsiders in 20 communities.

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[1]The question used to secure individual nominations was, "Who in this community is most imitated when it comes to farming and cattle raising in general?"

Table 38: Correlations of Innovativeness, Opinion Leadership Concentration and Trust

	Trust of Neighbor: Attitude	Trust of Agronomist over Neighbor
1. Innovativness,	-.437[a]	.637[b]
2. Opinion Leadership Concentration	.351	-.592[b]

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .005 level.

Assuming that most innovations enter the community from the outside world, we would expect that the more localite communities would have less exposure to these innovations and less of a chance to adopt them. But localite communities are also trustful of neighbors. The observed negative correlations of trust of neighbors and innovativeness support the conclusion that the community with more trust of neighbors is less adoptive of agricultural innovations.

The initial entrance of innovations into the community may rely heavily on the agronomist, but their subsequent diffusion depends to a great extent on whether a very few men or many men serve as influentials for other farm operators in terms of the adoption of new agricultural practices. If only a few people have information and experience concerning innovations, the rate of diffusion should be much slower than in a community where many have information and experience with new practices.

Since this rate is slower in the community where leadership is more concentrated, at any particular moment the extent to which practices have been adopted should be less in the more concentrated community. Our data show a correlation of -.666 between opinion leadership concentration and average practice adoption, which supports this hypothesis.

One possible role that trust of the agronomist might play in the diffusion process is lessening the concentration of leadership while at the same time getting more practices adopted. If there is a high degree of trust of the agronomist in the community, many individuals may be privy to the information that he has. Thus, concentration of leadership should be less in communities with high trust of the agronomist. Similarly, in communities where the agronomist is trusted, adoption of practices he recommends should be higher than in communities where he is not trusted. These contentions are supported as shown in Table 38.

The possibility exists, therefore, that the very correlation of -.666 between concentration of leadership and level of adoption is a result of the two variables' correlation with trust of the agronomist. The partial correlation does drop from -.666 to -.465 which give some support to this possibility, although the partial correlation is still significantly different from zero at the .05 level.

Pursuing this point further, perhaps it is actual contact with the agronomist that produces the negative correlation between leadership concentration and adoption of practices. The argument would be that the ACAR supervisor provides many individuals with information about new practices in those communities where he has many contacts with the

farmers. Thus, these greater information inputs produce more people capable of acting as opinion leaders and thereby less of a concentration of leadership. The correlation between these two variables, contact with ACAR and leadership concentration, is indeed strongly negative, -.747.

Contact with the ACAR supervisor, where substantial, may also be productive of more innovation adoption; the correlation is in fact .740, highly significant beyond the .005 level of probability. With these correlations, the zero-order relationship of -.666 between leadership concentration and adoption drops to -.398 when contact with ACAR is controlled in a partial correlation. Thus, contact with the ACAR supervisor may well be inducing less of a concentration in opinion leadership and at the same time more adoption of practices, thereby creating a spurious correlation between these latter two variables.

It is apparent that both trust of the agronomist and contact with him are important for the diffusion of innovations, both as determinants of the infuence structure of the community and the adoption of innovations in the community. One would expect that in those communities which have relatively high trust of the agronomist, high contact with him should also be the case. Conversely, less trust should be accompanied by less contact. As these expectations posit, there is a high positive correlation between trust and contact with the ACAR supervisor of .775. Thus, the attitudinal orientation of the community as a whole toward the agronomist carries over to actual behavior in terms of conversations with him. Such a relationship helps assure that increased contacts with the extension agent should result in increased acceptance of his messages pertaining to the adoption of innovations, since trust is essential in this message acceptance process.

Trust of Neighbors and Economic Development

The fundamental question that threads its way through this study is: how is interpersonal trust involved in the process of social change? Previous chapters attack this question utilizing data on individuals and their communities. The catalyzing agent in the change process, as conceptualized in these chapters, has been described as "cosmopolite" forces. Ideas, modes of living, attitudes, information and other aspects of a different way of life impinge upon the rural community from other rural communities, the urban centers of the country, and even from other nations. The cosmopolite, an individual who is oriented toward life outside the borders of the community, tends to trust those individuals and groups that represent this world. The localite, on the other hand, who is oriented toward the community in which he lives, expresses this orientation in a trust of his neighbors, an acceptance of those who live in the community.

In a similar fashion, the community that is more open to influence from the outside world tends to express less of a trust of those within the community than a community that is less exposed to the outside.

These discussions have focused on a potent catalyst of change, cosmopolite influences, and have argued that a result of such outside infringements on community life is a lessening of trust within the community. But change is also reflected in other characteristics of community life. The general term "development" expresses a form of this change, which involves many fundamental alterations in community life. In fact, the broad concept of "development" usually covers most of the changes that occur in any social group, be it a nation or a community. We propose to define this

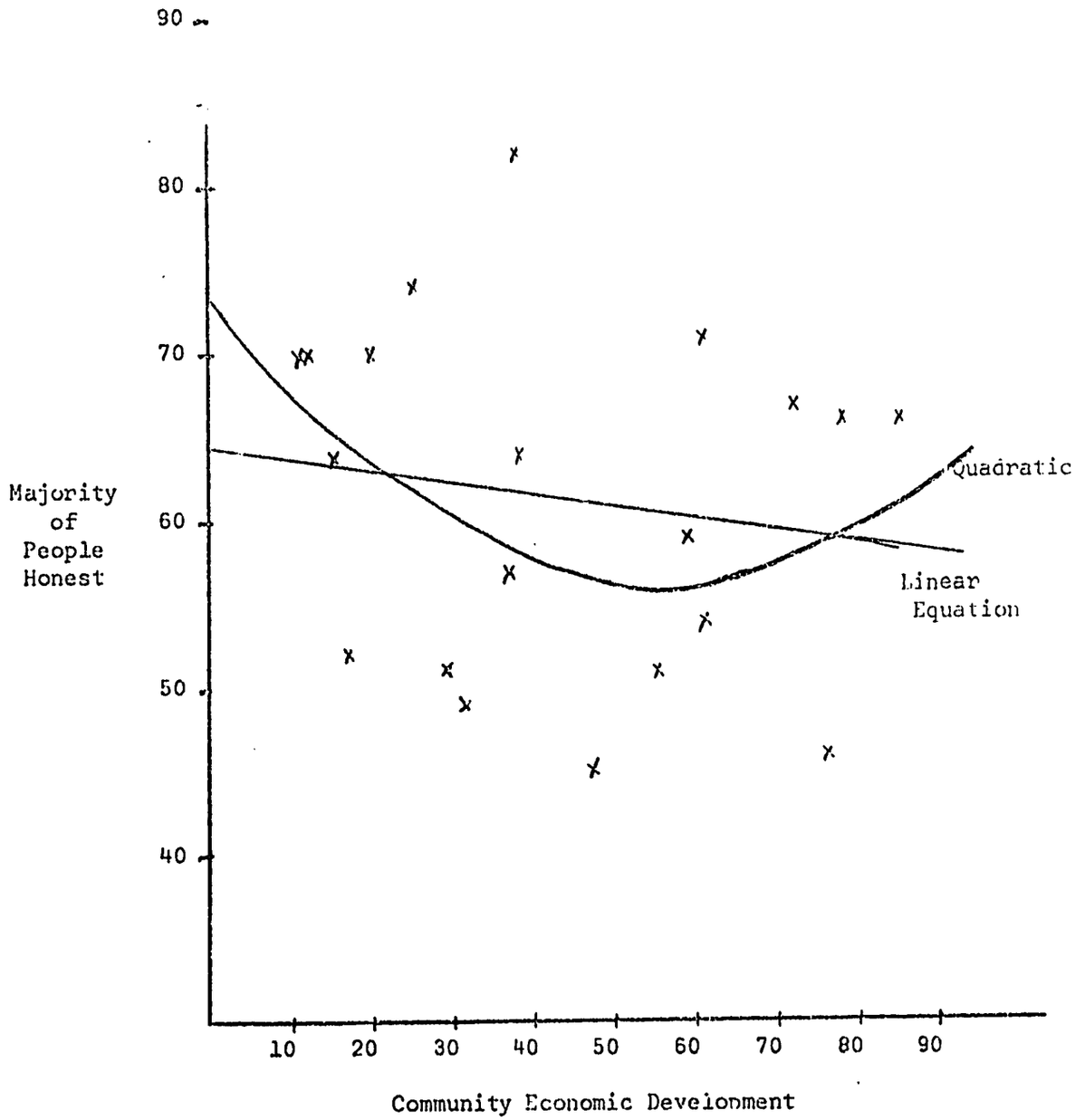

Figure 3 : Scatter Plot of Relationship Between Belief in Honesty and Development.

Table 42: Variance Explained by Linear and Quadratic Equations Relating Trust (Y) and Economic Development (X)

Equation	Variance Explained	Value of Constants a	b	c
A. Where Y = Trust of neighbors:				
$Y = aX + c$	46.0%	-.356	-----	80.09
$Y = aX + bX^2 + c$	52.2	-.972	.007	09.66
B. Where Y = Most people honest:				
$Y = aX + c$	2.7%	-.072	-----	64.52
$Y = aX + bX^2 + c$	8.9	-.577	.005	73.19

richest communities, plus the fairly small percentage improvement in variance explained from the quadratic equation, suggests that the straight line may be preferred to the quadratic.

The theoretical issue is whether there is in general a decrease in trust as development progresses, or if it is possible for trust to decrease to a point and then increase again. Our data show that the latter may be the case, that trust may increase for the more developed communities; however, for the three most economically developed communities, trust scores range from 44% to 73%. Any overall reversal in the general downward trend is certainly not clear, given this wide range of trust scores for the developed communities. Therefore, since the linear equation expresses the simplest theoretical relationship between trust and development, we will use the linear solution. The obvious need is for more communities in our sample with higher levels of development in order to see whether the

quadratic equation does in fact express the relationship better. However, until more data are available, we will assume that as development increases, trust decreases in a linear fashion.

This finding of a negative correlation between trust of neighbor and community economic development is somewhat restricted to the study of several different communities at one point in time, rather than the continuous study of a community (or communities) over a number of years. Our procedure assumes that the process of development is historically linear; that is, we assume that development proceeds in the same manner for all the communities in our sample. Such an assumption is clearly absolutist as our earlier discussion of this theoretical position would indicate, and yet it may have some validity in that only one culture is involved. With this (absolutist) approach, we isolate differences among communities in terms of economic development along with other characteristics of these communities that co-vary with economic development. Since the highly developed communities have fewer people who are willing to respond in a trusting manner than do the poorer communities, we argue that the actual over-time process of development from poor to rich also entails a change from trust to distrust. As a first approximation to stating a relationship between trust and development, such an approach yields information that bears on the problem of changes over time; yet the conclusion that trust and development are inversely related awaits conclusive proof from studies that measure these variables at various times as the process of development unfolds.

Our problem is to interpret this negative correlation between trust and development within the limitations of the data. There are several possible interpretations. First, the solution may be as stated earlier, that economic development causes[1] trust of one's peers to decline. Since the data come from a single point in time, however, there is an equally probable interpretation that can be advanced to account for the relationship, namely that a decline in trust causes economic development to occur.

With the data at our disposal, in this two variable case, the decision as to which direction the causal pattern moves depends on the appeal of the theoretical reasoning behind each position. For the possibility that distrust causes development, we, perhaps falsely, maintain that the reasoning is not as clear as for the reverse, at least in terms of earlier theories. It could well be that in a community where conflict and distrust develops among the inhabitants, some sort of personal competition also develops, which results in an overall increase in the standard of living of the community. Such an argument, however, does not seem patently obvious given the general situation of poverty in which these communities exist and the increased difficulties that conflict would introduce. The possibility is there, and should not be completely discounted.[2]

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[1]Causation is used here as an aid to conceptualization and does not imply that the philosophic and operational difficulties with this concept have been resolved.

[2]McClelland (1961) does make a similar argument by saying that achievement motivation causes development on a national scale.

The reverse causal argument which runs from development to distrust has more intellectual support, as we have noted in the theories of Marx, Tönnies, Pappenheim, and others. Economic or technological determinism has a long history. The argument claims that changes in the ways men physically live or earn their living brings about changes in the way they think about the world and their relationships with other people. Examples of this reasoning might be the following: the capitalist economic organization "causes" the acceptance of economic achievement as the highest good, or the assembly line in factories causes increased alienation of the worker from society (see Marx, 1906, Vol. I). Arguments reversing this causal chain from social relationships or ideologies to economic development have, nonetheless, become popular, such as in the theories of McClelland (1961), Weber (1958), Hagen (1962), and to an extent Lerner (1958). However, none of these reversals have argued that, for a social unit like a community, distrust would speed development.

The economic determinism presented earlier as a rationale for expecting development to lead to a distrust of peers can be phrased in two ways. First, in a condition of poverty individuals are forced to trust their neighbors, since the alternative is suspicion and conflict in a situation where mutual aid is necessary for mutual survival. In poverty there is no margin for isolation, no room for the luxury of conflict. As development progresses, however, and people become less dependent economically on their peers, conflict and distrust becomes economically possible.

A second interpretation is that the very process of economic improvement may itself create the class divisions of which Marx spoke.

Development may signify a moving away from reciprocal exchanges to a consideration only of economic gain. In such a situation exploitation of man is culturally acceptable in the search for economic excellence. In such a situation, the devotion of a society to economic growth substitutes personal economic gain for the personal social relationships which are not relevant to economics. Only economic gain, or its possibility, ties individuals together in a social unit.

These two approaches to economic determinism posit two different views of human nature and the relation of man to society. The first says that man is by nature mean and avaricious, and that when economic restraints on this meanness are removed, his true nature emerges. The second explanation argues more for the importance of social forces outside the individual as the determinants of his behavior. In this view, man may be basically a social animal, but economic forces in society destroy his sociability and money becomes the shifting tie that binds people together; at the same time, it prepares them for class war and societal collapse. For both explanations, however, the central thrust is one of economics determining sentiments such as interpersonal trust.

There is yet a third way to interpret the correlation between development and trust by invoking a third variable that determines them both. Such an approach to the problem resolves the disparity between economic determinism's explanation and its opposite, which might be called cultural determinism. In a sense, this third view of the problem has been evolving throughout the previous chapters where we examine trust as a manifestation of orientations toward the community and the outside world. The third

variable that may determine[1] both economic development and interpersonal trust, or at least trust alone, is cosmopoliteness.

The argument could take two forms: (1) cosmopoliteness or exposure to the outside world leads to economic growth and to a lessening of dependence on the community in the form of trust; or (2) economic development creates the possibility of greater external contacts which in turn reduces trust of others within the community. In both of these situations, trust of neighbors is the dependent variable in the sense that it decreases either directly from a greater exposure to the outside world alone or as a conjunctive effect of economic development and exposure to the outside world.

With data at a single point in time such an argument could be complicated by including all the possible arrangements of three variables. One procedure would be to examine the data available to see to what extent it is possible to accept this trust of others as a dependent variable. In examining this model one can look at both sides of the coin, as we did in the analysis of individual respondents, and consider both trust of others within the community and trust of others from outside the community. If trust is a function of cosmopolite influence, trust of peers should be negatively correlated with cosmopolite factors, and trust of outsiders should be positively correlated with these factors.

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[1]We are still arguing in a causal manner, however, and just substituting one ultimate cause for another. Such an approach we consider helpful in constituting an argument with which the data may or may not be conguent.

Although this third alternative escapes the economic determinist mold by utilizing a third variable to explain the relationship between trust and development, it also ignores a fourth alternative that deals directly with the simple correlation between trust and development. There is the possibility that the communities in our sample are located on the development continuum at a point where this inverse relationship holds, but that in the future the richer communities might progress to a point on the continuum where the changes that are now occurring will be incorporated into village life and a new tradition of trust established. Either the economic wealth will become so readily available that the reasons for conflict will disappear, or the new boundaries of competition will become so fixed as to allow the sentiment of trust to exist again.[1] We noted this possibility of a curvilinear relationship earlier, and decided that we must await more data.

It is also possible that our absolutist approach is incorrect in assuming that development is an historically linear process, and that the poorer communities in our sample will take advantage of the knowledge gained by the "advanced" communities and somehow avoid the community disintegration that the lack of trust entails. Or completely new developments will alter the process of change sufficiently to enable a bypass of the distrust

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[1]Such an explanation would account for the apparently positive correlation between trust and development that appears in Almond and Verba (1963).

stage.[1] However, until some alternative for changing the plane of development is empirically demonstrated, the third argument relating cosmopoliteness, development and trust remains most inviting both from the point of view of simplicity and congruence with existing data.

Cosmopoliteness, Trust of Neighbors and Economic Development

This most inviting explanation proposes an interrelationship of cosmopoliteness, development and trust of neighbors. We have shown that all three variables co-vary; the problem is to advance a model that relates them in some causal fashion. We argued earlier in this chapter that both development and trust may be a function of cosmopolite factors. Exposure to the outside world creates the condition in the community for economic development to occur, and at the same time weakens the interpersonal bonds we call trust within the community. But, there is also the possibility that economic development is an intervening variable; it is the result of more community contacts with the outside world and in turn leads to less trust of neighbors.

The two causal models we propose to test are the following:

Model I: $C \longrightarrow D \longrightarrow T$

Model II: $C \rightarrow D$, $C \rightarrow T$

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[1]These arguments, of course, are commonly applied to the problems of economic development at the national level of aggregation (see Sen, 1968). Since the process of change in this study occurs at the community level and also uses aggregated data, our arguments often take on the apparel used in discussions of national development.

Where C is cosmopoliteness, D is development and T is trust of neighbors. If the correlation between C and T drops significantly when D is controlled, we have support for the first model. If the correlation is not effected by this operation, the second model seems more likely. Reasoning inversely, if Model II fits the data, the correlation between development and trust should be due to cosmopoliteness. In such a case, the partial correlation between D and T controlling on C should be substantially less than the zero-order correlation between D and T. If however, this drop does not occur, Model I would be the alternative.

The relevant zero-order and partial correlations are shown in Table 54; two measures of trust in neighbors were used, one the attitudinal item and the other a part of the paired comparison, in order to check the consistency of results.

Both measures of trust in neighbors yield high zero-order correlations with level of economic development. Both are significantly correlated with exposure to radio and television. Neither is particularly correlated with exposure to newspaper and cinema exposure, and only the paired comparison measure is correlated significantly with ACAR contact. All correlations, statistically significant or not, are in the expected directions; that is, trust of neighbors is in general negatively related to cosmopolite influences and economic development.

The question now is, which causal model best fits the empirical data? Model I would require that the partial correlation between cosmopoliteness and trust decrease when level of development is controlled (Blalock, 1964). Approaching the data from another direction, Model I

Table 43: Zero-Order and Partial Correlations of Trust in Neighbors, Cosmopoliteness and Economic Development

Trust of Neighbors Measures	Cosmopoliteness Indices					
	Newspaper Exposure	Radio Exposure	Television Exposure	Cinema Exposure	Contact with ACAR	Economic Development
1. Attitudinal measure of trust of neighbors						
a. Zero-order correlation of trust	-.367	-.401[a]	-.704[c]	-.537[b]	-.216	-.678[c]
b. Partial between trust and cosmopoliteness, controlling on economic development	+.327	+.008	-.359	-.104	+.506[a]	
c. Partial between trust and development controlling on cosmopoliteness indices	-.604[b]	-.597[b]	-.353	-.502[b]	-.758[c]	
2. Paired comparison: Prefer neighbor over agronomist						
a. Zero-order correlations of trust	-.268	-.676[c]	-.724[c]	-.028	-.511[a]	-.624[c]
b. Partial correlations controlling on economic development	+.422[a]	-.472[a]	-.476[a]	+.741	-.108	

Table 43 -- Continued

Trust of Neighbors Measures	Cosmopoliteness Indices					
	Newspaper Exposure	Radio Exposure	Television Exposure	Cinema Exposure	Contact with ACAR	Economic Development
c. Partial between trust and development controlling on cosmopoliteness	-.677[b]	-.556	-.103	-.863[b]	-.427[a]	

[a]Significantly different from zero at the .05 level.

[b]Significantly different from zero at the .01 level.

[c]Significantly different from zero at the .005 level.

would also require that the partial correlation between development and trust not drop when cosmopoliteness is partialled out (McNemar, 1963, p. 166).

Model II, however, would satisfy the reverse conditions. If the partial between C and T is not different from the zero-order correlation between C and T, and if the partial between D and T is different from the zero-order correlation between D and T, Model II would supply the better fit with the data.

The results in Table 53, for the attitudinal measures of trust of neighbors, shows that three of the four partials between trust and cosmopoliteness (controlling on development) actually have a sign opposite to the zero-order correlation between cosmopoliteness and trust. The partial correlation of trust with ACAR contact actually reaches statistical

significance with the sign reversed. Such results give strong support to the first causal model:

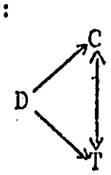
Cosmopoliteness ——→ Development ——→ Trust of Neighbors

This conclusion is also in part supported by the partial correlations involving the second measure of trust derived from the paired compared question. In each case the partial correlation is substantially less than the zero-order correlation, and one partial actually changes its sign.

Approaching the problem differently, using the attitudinal measure of trust, three of the correlations between trust and development remain essentially the same when cosmopoliteness indices are controlled; the paired comparison measure shows slightly more effect of cosmopoliteness but the relationship remains negative in all cases. Since this partial correlation between trust and development is not overly affected by controlling on cosmopoliteness, again Model I appears to fit the data better than Model II.

The acceptance of Model I does not, however, preclude other possible combinations of these three variables. On statistical bases alone, these results are highly susceptible to sampling fluctuations. With only 20 communities, a different sample might produce quite different correlations.

But beyond these difficulties, the following model also fits the data as well as does Model I:



Development (D) may result in higher exposure to the outside world (C) as well as create a lessening of trust (T) in these communities. The partial correlations calculated above would give equal support to this model of causal patterns. The dilemma can only be resolved through non-statistical procedures, such as a decision as to which variable logically should precede the others in time. We have argued that an increase in exposure to the outside world is more likely to precede development in time, if for no other reason that it should be easier to raise information inputs into the community than overall economic well-being. In turn, trust is the final variable in the chain for non-statistical reasons. Given that cosmopoliteness is the first element, it seems more reasonable to expect that development would lead to a lessening of trust rather than a lessening of trust leading to higher development. A statistical argument would support this view, however, because of the relatively high correlations between cosmopolite variables and development, and because of the relatively low correlations between cosmopolite variables and trust. With these conditions, the partial correlation for cosmopoliteness and development controlling on trust is little different from the zero-order correlation. The model positing an intervening role for trust, therefore is not supported.

Model I gives the best fit with our theoretical considerations as well as with the data as presented in partial correlations. The fundamental processes considered in Model I provide links between the broad forces for change as exemplified in the cosmopolite variables, the physical improvement in the lives of a social entity called a community, and finally the solidarity of the community in terms of mutual interpersonal

trust. The argument has shifted somewhat from a consideration of trust as a mere manifestation of the broad cosmopolite-localite continuum to trust as a dependent variable in a three variable causal chain. This chain has cosmopoliteness as the original catalyst toward development; in turn, development produces a lessening of mutual trust within the community

The difficulties in accepting such a view stem primarily from methodological problems such as the small sample size and data from only one point in time. However, the patterns in the correlations hold when two fairly different measures of trust are used; both the attitudinal measure and the paired comparison measure of trust of neighbors give similar zero-order and partial correlations. In no instance do the two measures give contradictory impressions. Pending data gathered on these communities sometime in the future, the leads outlined using zero-order correlations from one wave of interviewing provide a basis for constructing a simple yet coherent model of how development might occur and how e broad forces of social change affect the interpersonal relationships within rural communities.

Summary

The first section of this chapter demonstrates the negative correlation of trust of neighbors and cosmopolite influences impinging upon the community, and the positive correlation of trust of outsiders and these influences.

The second section deals with other variables that describe these 20 communities, and how they are correlated with trust of insiders and trust of outsiders. The communities with higher education, literacy rates, and

political knowledge also exhibit more trust of outsiders--especially the agronomist--and less trust of neighbors. The general receptivity of the community to agricultural innovations is correlated positively with trust of the agronomist, and negatively with trust of neighbors. Opinion leadership concentration is correlated negatively with trust of outsiders; that is, in communities where the agronomist is trusted, there also tends to be more farmers sharing the leadership chores. We speculated on the reasons for these correlations, arriving at the conclusion that contact with, and trust of, the extension agent enables the community to widen its capacity to receive information and thereby increase the number of farmers with needed information and the number of farmers who adopt agricultural innovations.

The final section examines a model of social change applicable to communities which involves cosmopoliteness, economic development and interpersonal trust. The model was found supported, at least within the confines of the data available. In this model three fairly broad categories of variables are related: (1) influences that bear upon community life from the outside world; (2) the economic well-being of the community; and (3) the quality of interpersonal life as reflected in trust within the community. Cosmopoliteness is viewed as the initial catalyst, which in combination with economic development provide the setting for a lessening of trust in dealings between community residents.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

The objectives of this study revolve around a general desire to see how trust is involved in the process of social change called development and modernization. Specifically, the objectives are: (1) to see how interpersonal trust correlates with various indicants of change; (2) to examine the relationship of trust to communication links individuals maintain with the sources of change; and (3) to explore how trust as an indicant of social integration may be affected by change in the society.

We define trust as an expectation on the part of some individual that another person or group will usually be helpful. This definition involves four elements: the individual that exhibits trust; the object of that trust, i.e., the person or group that is trusted; the expectation of future helpful behavior; and the degree of conviction with which this expectation is held, i.e., the belief that the other person will usually be helpful or not. With such a definition, there can be varying degrees of trust from high to low; if desired we can also use the concept of distrust as the simple negation of trust, the expectation that another person will usually be harmful rather than helpful.

In an effort to gather data on the role trust plays in life in underdeveloped areas, we went to 20 rural communities in Minas Gerais, Brazil, and interviewed 1,307 farm operators on various aspects of their lives and on their trust of various persons and gorups. One year after this interviewing, we re-interviewed 315 of the initial sample to test

some ideas that developed from preliminary analyses of the data.

Most of the studies that deal with trust and underdevelopment have argued for a positive relationship between a general trust of others and modernization. Our data showed that in fact there appeared to be a negative relationship between trust and indices of modernization like innovativeness, education, mass media exposure and trips to a city. Further analysis showed that this negative relationship could be isolated for trust of neighbors, while little evidence existed for any relationship of general trust of others and modernity. This result forced a reinterpretation of the theory linking trust and social change, changing from an absolutist expectation of more development, more trust to an immanent approach which allows for a negative relationship, depending on the object of trust. The absolutist looks at development as raising the underdeveloped countries to the level of the developed ones. Since trust in this view is a characteristic of modernity and distrust is a characteristic of traditionalism, the general argument is for a positive correlation between trust and indices of modernity. The immanent argues that within the Brazilian communities trust of neighbors is often forced by the nature of conditions that exist within these communities, especially the restrictions that economics places on conflict and distrust. Trust of outsiders, however, signifies an escape from the community and an orientation toward the outside world.

In general, the immanent approach is supported by the data; trust of neighbors operates in a completely different manner from trust of outsiders. An individual who trusts his neighbors is usually a young, poor, little educated farmer who seldom ventures outside his community

and has limited exposure to the mass media. Conversely, a person who trusts outsiders, such as the ACAR supervisor and the interviewer, has higher exposure to radio, newspapers, television and cinema has higher education, a larger farm, and a higher level of living than a person who does not trust outsiders. Trust of neighbors and trust of outsiders are characteristics of different types of individual in terms of their exposure to the outside world, education and wealth.

The crucial difference between those who trust their neighbors and those who do not, lies in the latter's greater communication with the outside world, or as we have phrased it, his greater cosmopoliteness. Similarly, those who trust outsiders tend to be more cosmopolite than those who do not trust outsiders. The involvement of farmers in the communication flow into the community from the outside, often urban world, is reflected in their interpersonal relationships, or at least their perceptions of these relationships. The cosmopolite farmer tends to trust outsiders and not his neighbors, while the localite farmer tends to trust his neighbors and not outsiders.

These results lead to speculations about how cosmopolite factors influence interpersonal relationships and the level of trust in these relationships. We have argued that an individual with greater communication links with the outside world develops an orientation toward this world that allows him to lessen his dependence on those within the community. This change of reference points from within the community to people and organizations outside the community is reflected in the trust sentiment. When the individual has alternative reference points outside the community, he becomes less concerned with maintaining trusting and

trustworthy relationships with his neighbors. Having an outside comparison for his community life may contribute to his avoidance of close ties to it, and at the same time may encourage an idealization of life outside the community. In a larger sense, the increased contact with the outside world may contribute to a vague feeling of anxiety that Leighton (1963) and Erickson (1959) argue is the result of enduring in a rapidly changing social situation. This anxiety may extend to other people and result in a gradual increase of distrust. But whatever the reasons, the pattern seems clear: localites or those oriented toward the community, trust their neighbors within the community and distrust people from outside the community; cosmopolites, or those oriented toward the outside world, tend to distrust their neighbors and trust outsiders.

These observations, combined with the imperfect negative correlation between trust of peers and trust of outsiders, led to a consideration of a trust typology wherein "locals" are those respondents who trust their neighbors but not outsiders; "optimists" are able to trust <u>both</u> their neighbors and outsiders; "misanthropes" trust no one, <u>neither</u> their neighbors nor outsiders; and "cosmopolitans" trust only outsiders. The consistent finding relating these types is the progressively greater cosmopolite orientation from the local to optimist, to misanthrope, to cosmopolitan. The local is the most isolated in terms of his physical visits to other cities and having had a residence outside the community as well as in terms of his education, wealth, and mass media exposure. The optimist is less localite, the misanthrope is more cosmopolite, and the cosmopolitan is, as the name implies, most

cosmopolite. This typology somewhat accounts for the generally low correlations that the two trust items, trust of neighbors and trust of outsiders, have with the cosmopolite variables individually. There are many respondents, for example, who are quite cosmopolite but who at the same time trust both their neighbors and outsiders (this type we have labeled as "optimists").

Probably the most interesting finding pertaining to this typology is the high opinion leadership exhibited by the cosmopolitan, who trusts outsiders, and the misanthrope, who trusts no one. Both of these types exercise a high degree of influence over the opinions of their peers at least in agricultural matters. The characteristics of these two leaders are radically different, however. While they are both fairly cosmopolite in terms of their reception of information and orientation toward the outside world, the misanthrope is much less receptive to change, much less innovative than the cosmopolitan, who is the most innovative of the four types. We conclude that there are two major kinds of leadership in rural areas, both fairly knowledgeable about the world outside the community; one type, the misanthrope rejects change along with most people with whom he deals, while the other, the cosmopolitan, is highly receptive to change in agriculture and at the same time open to outsiders that often bring new ideas into the community. The obvious implication of this finding for change agencies is to focus their efforts on the cosmopolitan and yet be prepared for the opposition of the misanthropes.

It is interesting to speculate why some farmers look to the misanthrope for guidance in matters pertaining to agriculture. Certainly,

the misanthrope should be knowledgeable, since he has a high exposure to the outside world and travels outside the community. He also is not a poor man, typically having a relatively high level of living and income. In these ways, he is similar to the cosmopolitan. Perhaps his higher knowledge and wealth mark him as a leader. His attitude toward people, however, is in general quite negative. He is skeptical of his neighbors' motives as well as the motives of outsiders. This skepticism extends to new agricultural ideas and practices, where the misanthrope has to be completely convinced of the value of a new idea before he will adopt it. This skepticism may recommend him to certain farmers who in part share his negative view of the world. If the misanthrope finally decides to use an innovation, it must be safe for others to try. Perhaps for this reason, the misanthrope's opinions have a certain weight in the community.

Our analysis of community levels of trust gave results similar to the analysis of individual farmers; the community that exhibits more trust of neighbors also exhibits less trust of outsiders like the extension agent, less exposure in general to the outside world and lower economic development. A model of social change that attempts to isolate the order in which change occurs and its effects on interpersonal trust is the following: (1) influences from cities and other areas of the country begin to enter the community with greater frequency; (2) these forces stimulate community residents to incorporate the advantages of the outside world, which in turn results in a gradual improvement in the level of living of the community; (3) physical changes in the life of the community, its rising economic affluence, its greater orientation

toward the outside world leads to a lessening of interpersonal trust and confidence of those within the community. Thus, the absolutist expectation of greater trust being the result of development, at least within our sample, is directly negated. Development appears to be accompanied by a lessening of trust of others within the community.

Is trust an important variable for the study of modernization? We have argued that the cosmopolite forces appear to be central to the process of social change. The trust measures allow us to examine this dimension of cosmopoliteness as related to orientations toward the community and the outside world. As specific measures of the cosmopolite and localite orientations, however, other behavioral measures may be as valuable as the attitudinal, trust measures which are inherently more unstable than behavioral measures, at least in rural samples. The value of the trust measures comes from our capacity to consider them simultaneously and form a four-fold typology. The differences among the four types point to the usefulness in future research of a refinement in cosmopolite and localite orientation. Usually measures of the cosmopolite-localite dimension are unidimensional or at least conceptually homogeneous. Perhaps Merton's original insights should be reformulated to isolate different orientations toward the community and the outside world in order to achieve a greater understanding of the process of social change.

Beyond this facility for forming a reasonable typology, our analysis of trust pertains to interpersonal relationships from the point of view of a single individual, the respondent. Thus, we are able to examine interpersonal interactions through individual interviews, rather

than being limited to actual observation of these interactions in some manner. This capacity enables us to examine these relationships in many different contexts, in our case in 20 different communities. The negative relationship discovered between community economic development and community trust of neighbors is a direct test of several theories that are concerned about the effect of development on the quality of interpersonal relationships. Since empirical data on this point are somewhat rare, the advantage of examining interpersonal relationships in individual interviews seems substantial.

Is the consideration of trust important in studies of modernization? The answer as always must depend on the purposes of the study, but for researchers interested in the quality of interpersonal relationships and the different types of individuals that exhibit different orientations toward these relationships, a consideration of trust seems vital. The broader goal of finding core variables that measure "modernity" might also profit from a consideration of trust. The simplistic notion of more trust, more modernity, has to be dropped; but the more complex procedure of specifying the trust objects and then examining the different trust items separately seems fruitful.

With the most highly specified object of trust such as a single individual like the ACAR supervisor, trust seems to be important as a predictor of interactions with that individual. We have used the term "barrier reducer" to describe the role trust plays in specific relationships. It "opens" the individuals involved, making possible a more fruitful exchange of information. Trust is certainly important for facilitating a change agent's capacity to get through to his audience, especially in rural areas that have a notorious resistance to outsiders

coming in telling others what to do.

To summarize the central findings of this study:

(1) Trust of outsiders is a cosmopolite orientation, while trust of neighbors is a localite one.

(2) There seem to be types of trusting orientations: the local who trusts only his peers and is least open to the outside world; the optimist who trusts everyone--his peers as well as outsiders; the misanthrope who trusts no one; and the cosmopolitan who trust outsiders but not his neighbors.

(3) Trust facilitates information exchange and keeps the interaction on a pleasant plane;

(4) Communities where trust of neighbors is prevalent are also poor in economic terms; where there is less trust, there is also a higher level of economic development.

(5) Cosmopolite forces may stimulate economic development, which in turn may introduce conflicts that reduce community levels of interpersonal trust.

Future Research

The main implications that this study holds for future research are the following:

(1) Orientations toward the inside and outside world should be further studied, using some of Merton's initial insights to identify what combinations of orientations there are and how these combinations are involved in change. Our four types of trusting orientations are suggestive of various kinds of leaders that exist within rural communities and of various degrees of receptivity for new ideas relating

to agriculture. Certainly these orientations are characteristic of other people in the community; there may even be other kinds of orientations that may be of importance to the process of social change.

(2) Given that these four types--local, optimist, misanthrope, and cosmopolitan--exist, each type certainly exerts some influence over others within the community. With a larger sample one should be able to examine the characteristics of those who lead and those who follow, and how this leader-follower relationship might vary in different communities. Do locals have locals as opinion leaders? Do the misanthropes lead a traditional segment of the population while the cosmopolitans lead a modern segment? These questions directly bear on the process of change.

(3) Since we have demonstrated the importance of specifying the object of trust, future studies could specify various objects not examined in this study, such as friends, family, politicians, and businessmen. Perhaps trust of these objects indicate yet other orientations not isolated in this study.

(4) The analysis of community trust levels demonstrated that interpersonal relationships and attitudes toward others may be a result of the change process. Certainly other attitudes should be so affected; and perhaps it could be shown that in some communities these attitudes themselves influence the speed with which communities change. Future studies could examine the general attitudinal climate of communities and how it is involved in change. In a more general sense, future studies would profit from analysis of systems, be they communities or schools. Since systems like our communities involve groups of indi-

viduals, social process could be studied, and perhaps conclusions with a larger power be reached than in studies of individuals.

(5) In order to avoid the absolutist difficulties and many of the problems involved in a correlational analysis of development, some historical data is badly needed. Future studies could focus on a sample of communities and study them over a period of years. Such a procedure would allow the isolation of change, why it happens in one community rather than in another, and what effects change brings about in the communities. In our study, we have data on 20 communities from one point in time; a study over time could test some of the notions we have presented by including considerations of time directly in the research, instead of operating "as if" time were included in the research.

APPENDIX A

DATA GATHERING PROCEDURES IN PHASE I, II AND 2.5

Methodology in Phase I

The main objective of Phase I was the study of 76 communities to determine why the extension service is more effective in some than in others. The selection of this sample of 76 communities proceeded as follows. (1) A list of extension service local offices was drawn up, about 210 of these offices are maintained around the state, (2) A random sample of 38 offices were selected, (3) a trip to each office was made, and the local extension officer was asked to indicate two communities in his work sector, one in which he had considerable success in his work, and the other in which he had generally failed. Since each of the 38 local agents named two communities, a final list of 76 communities resulted and constituted the sample for Phase I.

These communities were studied via personal interviews in January, 1966, with several presumably knowledgeable individuals. The extension agent himself was interviewed, and asked about his own work style as well as about the communities he served. Leaders at the municipio or country level were also interviewed to gain information about the nearby communities, as well as about local leaders who might also contribute information about the community. These local leaders were then interviewed about their own behavior as well as about characteristics of the community as a whole. Any

other community residents who were mentioned by these local leaders as influential were also interviewed. In general, eight to ten local, informal leaders were interviewed in each of the 76 communities.

The only data used in the present study that come from this Phase I data gathering pertain to the Guttman scale on community communications development. These data come from the extension agent who was asked whether or not the communities have various communication media.

Methodology in Phase II

From the 76 communities studied in Phase I, 20 were selected for intensive study in Phase II. Phase II dropped from the community as the unit of analysis to the individual and his adoption of innovations. The 20 communities are located in various parts of the State of Minas Gerais, but are not a random sample of the 76 studied in Phase I. Rather, we selected those communities that had some nuclear center and were within four to five hours driving time from the state capital in which the research headquarters were located. That the communities be relatively accessible was dictated by the fact that field experiments were to be conducted in Phase III in the 20, and we did not want the communities to be beyond the reach of a radio station in the capital.

In each of these 20 communities we attempted to interview in July, 1966, all of the farm operators residing there. It was sometimes difficult to draw the borders of the community very

precisely, and to decide clearly in every case that an individual was a decision maker on a farm. However, the attempt was made, and an average of 65 personal interviews were obtained in each of the 20 communities.

Methodology in Phase 2.5

Immediately following the Phase II data gathering, the experimental phase of the Project was begun. Two community development schemes were tried, one called animation which attempted to train the leadership of the communities to work more assiduously for the betterment of the community. The other development treatment was literacy training, in which classes were given to any adults interested in learning to read and write.

Due to some unforeseen difficulties, these activities did not progress as well as had been hoped and were not terminated until May of 1967. Because of this delay the communication treatments could not be begun as soon as had been hoped. In order to evaluate these community development treatments and prepare the ground for the coming communication treatments, we decided to interview a random sample of approximately 30 farm operators in 10 of the 20 communities studied in Phase II. This data gathering, since it came midway between Phase II and the communication experiments in Phase III, was labeled Phase 2.5.

The objectives of Phase 2.5 were: (1) determine the effects if any of animation and literacy training; and (2) determine the level of knowledge of various agricultural practices that were the subject matter of the radio forums and community newspapers in the coming communication treatments.

A final random sample of 315 farmers constituted this Phase 2.5 data gathering. The respondents were selected from the Phase II lists of farmers interviewed by considering every nth name on the community lists. The 10 communities were selected so as to give data from at least three communities in each experimental cell.

Overall Observations on Methodologies in Each Phase

In each of the data gathering phases, personal interviews with a structured questionnaire constituted the means by which information was secured. Interviewers were usually students either from the Federal University in the state capital or agricultural college students from the Rural University in Lavras. Considerable training was given these interviewers in the techniques of interviewing and the building of rapport. In Phase II and 2.5 interviewers who had already worked in Phase I formed the core of interviewers. Teams of interviewers were formed, with a team captain being responsible for getting the work done in the communities assigned to the team and for maintaining the quality of the interviewing. In nearly all communities, the interviewers were well accepted, and few refusals were encountered.

Upon completion of the questionnaires, the responses were coded and prepared for transfer to IBM cards and computer analysis. Various error checks were done, first in the field by the team captain, then in the project office by supervisory personnel, and then at Michigan State via computer routines designed to catch illegal or illogical codes.

APPENDIX B

TEST-RETEST RELIABILITY OF VARIOUS MEASURES USED IN PHASE II

A total of 56 questions that were asked in Phase II were repeated in Phase 2.5 for 315 farmers interviewed in both phases. In most cases the wording of the item was the same in both phases, although for a very few questions a word or two were changed in the 2.5 measure. The measure that was most different between phases was innovativeness. In Phase II a series of 10-12 practices especially relevant to the agriculture of each community were used to form the innovativeness scale. In Phase 2.5, only five practices were included in the scale, and these five were common across all communities. Seldom were any practices in the two indices common across phases. Because of the differences in these indices, the reliability should not be as high as might be desired, although there should be some correlation if in fact both are measuring the concept of innovativeness.

In order to determine the test-retest reliability of these 56 questions, we simply correlated (r) the response the individual gave in Phase II with his response in Phase 2.5. The variable name, the wording of the question and the zero-order correlation between Phases for the 315 respondents is shown in Table 44. The 56 items are listed in order of their reliability coefficients. There are 44.6% of the coefficients which are .51 or above. A correlation of .09 is significantly different from zero at the .05 level, while a correlation of .13 is significant at the .01 level for a sample of 315.

Table 44: Pearson-product Moment Correlation between Time 1 and Time 2 Responses to Interview Questions.

Variable	Question Wording	Reliability Coefficient
1. Age	"How old are you?"	.92
2. Electric lighting	"Do you have electricity?"	.82
3. Letters	"Can you write letters?"	.77
4. Level of living	Sum of all items in the scale	.77
5. Pol. knowledge	Sum of all items in the scale	.74
6. Total area	"What is the total area of your farm?"	.72
7. Total no. of cows	"How many cows do you have?"	.72
8. Water filter	"Do you have a water filter?"	.71
9. Radio	"Do you have a radio at home?"	.71
10. Bathroom inside	"Do you have an inside toilet?"	.70
11. Pol. knowledge	"Who is the present governor of Minas?"	.69
12. Literacy	"Can you read this card for me?" (50 words)	.67
13. Radio	"Do you have a radio?"	.67
14. Number read	"Have you read (or has somebody read for you) newspapers or magazines lately? How many times a month?	.64
15. Movies	"Do you go to the cinema, how often?"	.64
16. Plumbing for running water	"Do you have plumbing?"	.61
17. House in town	"Do you have a house in town?"	.60
18. Reception	"Are you used to receiving newspapers or magazines?"	.60
19. Can read	"Can you read a newspaper?"	.60
20. Contact with ACAR	"How many times have you talked to the ACAR agent last year?"	.58

Table 44 -- Continued

Variable	Question Wording	Reliability Coefficient
21. Schooling	"How many years did you attend school?"	.60
22. Residence	"Have you ever lived away from this community?"	.57
23. Comprehension	"All right, from what you have just read, can you tell me in what sense the illiterate is not free."	.54
24. Pol. knowledge	"Which country of Latin American became communistic a few years ago?"	.54
25. Motorized vehicle	"Do you have a motorized vehicle?"	.51
26. Agricultural machines	"Do you have some agricultural machines?"	.44
27. Freq. of radio	"How often do you listen to the radio?"	.44
28. Pol. knowledge	"What is the name of one of the parties created after the 1964 revolution?:	.43
29. Trust neighbors	"What do you consider best when it comes to dealing with your neighbors: trust or trust untrustingly?"	.40
30. Empathy	Sum of items	.39
31. TV	"Do you watch TV?"	.38
32. Trust	Sum of items	.37
33. Adoption	Percentage of practices adopted	.36
34. Honesty	"Do you think that the majority of men are naturally dishonest or honest?"	.36
35. Start life again	"If you were starting your life now and were young, healthy and in good condition, where would you like to start, country or city?"	.35
36. N-ach	"It is better to be content with the little one has than to always be struggling for more."	.34

Table 44 -- Continued

Variable	Question Wording	Reliability Coefficient
37. N-ach	"The way things are nowadays makes it discouraging to work hard."	.34
38. Empathy (ACAR)	"If you were the ACAR agent, what would you do?"	.34
39. Wife's spending	"When your wife needs to buy clothes or medicines...she has to ask you first or she can buy and then tell you."	.33
40. Pol. knowledge	"Who was the President of Brazil that was overthrown by the 1964 revolution?"	.30
41. Innovativeness	Year of adoption.	.26
42. Visits to city	"Did you visit a large city last year?"	.24
43. Wood or tile floor	"Do you have a wood or tile floor?"	.23
44. Empathy (factory)	"If you were the person in charge of a factory, what would you do?"	.22
45. Son's occupation	"Would you wish that your sons follow an occupation...chosen by you or chosen by themselves (diff. word in T1 and T2)	.21
46. Trust in majority	"One can trust the majority of people."	.21
47. Trust relatives	"Nowadays one can only trust one's relatives."	.21
48. N-ach	"I'd like to try my hand at something really difficult even if it is only to prove to myself that I can do it."	.20
49. Contacts w. relatives	"Do you have any relative who lives in a large city?" "How often visit them?"	.20
50. Empathy (President)	"If you were the President of Brazil, what would you do?"	.19
51. 3 year plan	"What do you intend to do in the next three years?"	.17

Table 44 -- Continued

Variable	Question Wording	Reliability Coefficient
52. Empathy (Mayor)	"If you were the mayor of this municipio, what would you do?"	.15
53. Trust	"When you most need others is when no one helps."	.12
54. N-ach	"No matter what I've done, I am always wanting to do more."	.11
55. N-ach	"To wish to become important or to spend one's life trying to be successful is a waste of one's time."	.08
56. N-ach	"What would you do if you had 25 or more head of cattle?"	.08

APPENDIX C

GUTTMAN ANALYSIS OF EXTERNAL CONTACT SCALE

The local extension agent was questioned about the presence or absence of 10 "media" of communication in each community, as is shown in Table 45.

Table 45: Possession of Means for Receiving Information from Outside the Community

	Media	Percent of Communities Having the Media	Overall Error in Item
1.	At least one road passable all year around[a]	88%	3.6
2.	Majority have at least one relative in large city[a]	72%	10.6
3.	At least one TV channel receivable	65%	12.4
4.	Transportation for crops always available[a]	65%	12.7
5.	Bus at least five times a week	60%	12.4
6.	Someone who visits state capital at least once per month	42%	9.8
7.	Majority visited capital at least once[a]	39%	17.1
8.	Postal service	27%	3.9
9.	Telephone or telegraph with state capital	22%	10.0
10.	Bus station in community[a]	18%	8.7
		Total Error:	101.2

[a]Eliminated from final scale.

For these 10 items we calculated a Guttmen coefficient of reproducibility of 86.7, which means that according to standard criteria the items do not form a unidimensional scale for internal contact. A first step in finding an acceptable scale is to eliminate the two media that either 80 per cent of the communities have or do not have, items 1 and 10, to reduce possible inflations of the coefficient. If, at the same time, we eliminate the two most erroneous items--item 7, "a majority have visited capital at least once," and item 4, "transportation for crop always available"--we find a six item scale with a C.R. of 89.5. Finally, by eliminating the next most erroneous item, item 2, "majority have at least one relative in a large city," we get a C.R. of 91.3 which does meet the minimal criteria for a unidimensional scale.

To summarize, two items were eliminated because of the high percentage of communities either having or not having the media. Three other items were eliminated because they exhibited errors when placed with the items in the scale. These high error items probably have little to do with communication media, although item 6 was retained and is similar in content to item 7. Certainly it is not clear that these eliminated items should appear at one point in time and then disappear as the community reaches higher development levels, as is the case for some "development" scales.[1] The five remaining items do appear to be fairly homogeneous in content and do form a cumulative Guttman scale.

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[1]For a discussion of this problem see Robert K. Leik and Marilyn Matthews (1968).

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