

FATALISM AND MODERNIZATION IN COLOMBIA

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By

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ABSTRACT

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by Elssy Bonilla de Ramos

Fatalism has been considered as a central factor in the explanation of the failures of social change programs in underdeveloped areas of the world. There has been little research on the real influence of fatalism on the process of modernization. The present study will attempt to discern the relationships between fatalism and some selected variables of modernization.

The factors that increase the individual's motivation for modernization and change may give rise to higher levels of fatalism if circumstances are not favorable for the satisfaction of aroused wants and needs. It is the thesis of the present study that the greater the level of some modernization variables such as literacy, empathy and mass media exposure (that in the present study are considered antecedents of modernization as well as of fatalism), the greater the level of fatalism, when the individual does not perceive himself to be in control of his future.

The present study used fatalism as a dependent variable indexed by a fatalism scale of ten items. Negative relationships were predicted between fatalism and empathy, mass media exposure, functional literacy, innovativeness, educational aspirations, occupational aspirations, achievement motivation and formal participation. A positive relationship was predicted between fatalism and dogmatism.

Elssy Bonilla de Ramos

Respondents were from three peasant communities near Bogotá the capital of Colombia. One hundred and thirty-six respondents from the three communities were interviewed. The interview schedule was administered by students of sociology at the National University of Bogotá. The data were analyzed using product moment correlations.

Six of the nine hypotheses were confirmed. The six significant correlations were those of the relationships between fatalism and empathy, mass media exposure, functional literacy, educational aspirations and dogmatism.

To control for fatalism in the relationship between antecedent and consequent variables, partial correlation analysis was done in order to take out the effect of fatalism in these relationships. From this analysis it would appear that fatalism does not intervene the relationship of antecedents with consequents, except for the case of all the three antecedents when related to dogmatism.

A series of multiple correlations were computed in which the antecedents mass media exposure, empathy and functional literacy were utilized as predictors of fatalism. From this analysis would appear that the antecedents were poor predictors of fatalism.

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CHAPTER I

INTRODUCTION

Background and Nature of the Study

The process of modernization includes changes in the levels of technology, education, health and social organization in general, but also, and very importantly, the beliefs and attitudes of the people toward these factors are subject to change.

The individual is located in a complex system of groups and cliques, both formal and informal, and many of the beliefs and values the person holds are those held by others in these groups and cliques. As changes occur in these very important group beliefs or norms either the entire group must change or the deviant individual must seek another reference group.

Schreier (1964, p. 52) considered that many of the group norms in almost all traditional societies are inimical to modernization. Among such norms are the religious beliefs about man's inability to influence. However, in the process of modernization, which involves among other things the acquisition of a new style of life, it is almost impossible to avoid confrontations with group norms. The question is how to confront them.

A modern style of life necessitates a rise in personal aspirations, but an increased level of aspirations in a nation is not without danger. Lerner (1958, p. 46) maintained that mass media, literacy and empathy, as well as other factors, have been used to stimulate

development by raising the level of aspirations, but that inadequate provisions have been made for raising the level of achievement. Thus, people are encouraged to want more than they possibly get and aspirations rapidly outrun achievements and frustrations develop.

In Colombia, the rise of frustrations and dependence on the religious belief system of supernatural rewards for all the present sufferings, drive the individual to a passive position toward the future. An increase in the level of fatalism results and a strong barrier against change is built.

Skinner¹ suggests that the greatest amount of learning or change in behavior results when a task is increased by successive approximations of previously successful behavior with frequent reward. This theory, it would seem, has great potential for the guidance of progress of change. If fatalism is a learned attitude it ought to be possible for some to unlearn fatalism and thus remove it as a barrier against change. In the same way that the individual with successive failures in satisfying his motivations becomes fatalistic, the opposite situation may happen. If a set of successive innovative behaviors are repeatedly reinforced the person may become positively oriented toward modernization.

In general, very few studies about the nature and the importance of the role of fatalism are to be found. The existing studies of fatalism analyzed the concept from the anthropological point of view, which describes the concept, but makes no attempt to measure the impact of fatalism on individual behavior.

In Colombia, where the present study was done, fatalism received

¹For a discussion of Skinnerian learning principles, see Hill, F. Winfred (1968), Learning, A Survey of Psychological Interpretations, San Francisco, Chandler Publishing Company.

little attention in sociological or anthropological studies. Sariola (1965, p. 7) considered the influence of fatalism on violence and despair in some rural areas in Antioquia, Colombia, but he did not consider the influence of fatalism specifically on social change. He studied the possibility of applying Durkheim's two systems model of fatalism in two Colombian communities; one community relatively isolated and the other slightly more advanced in its socioeconomic characteristics and connected by a highway with the industrial city of Medellin.

Sariola found that the peasants living in the more isolated area believed that their welfare depended on factors essentially outside their control, more than the peasants of the community with more ready access to the urban center. The will of God, for example, was felt to play a greater part in the life of the more isolated peasants. Sariola concluded that a fatalistic dissatisfaction is prevalent in isolated rural areas in Colombia.

The present thesis will attempt to determine what the role of fatalism is in the process of modernization and how it is related to such factors of modernization as mass media exposure, functional literacy and empathy.

Objectives of the Study

1. To develop a conceptual definition of fatalism.
2. To operationalize the concept of fatalism, developing a scale to measure it and to determine the reliability and multidimensionality of the scale.
3. To develop a paradigm of modernization, to indicate how the concept of fatalism is related to the process of modernization.

4. To determine the relationships between fatalism and the selected antecedents of fatalism and modernization such as functional literacy, empathy and mass media exposure.
5. To determine the relationships of fatalism to the selected consequences of fatalism such as dogmatism, innovativeness, educational aspiration, achievement motivation, and formal participation.
6. To determine the extent to which mass media exposure, empathy and functional literacy predict fatalism.
7. To determine the extent to which selected correlates of modernization, including fatalism, predict the indices of modernization.

CHAPTER II
RATIONALE AND HYPOTHESES
A Theoretic Rationale

This chapter is organized under seven main headings: (1) some considerations about modernization and change; (2) aspects of fatalism; (3) the relationships between fatalism and value orientation systems; (4) paradigm of fatalism and modernization; (5) some antecedents of fatalism; (6) some consequences of fatalism; and (7) hypotheses.

Modernization and Social Change

Modernization is the growth of organized science in its expression in practical terms, known as technology. Translated in terms of the individual, this involves two steps: (1) arriving at new (scientific) mental concepts, and (2) converting these concepts into action or into material form (Hagen, 1962, p. 86). These two terms are interrelated at a point in time, but theoretically speaking, the first step precedes the second. It is at the first step that fatalism has its major impact. The "actual mental concept" of the people in developing areas reflects the fatalistic point of view of the life. A good example of this situation was reported by Pineda (1964, p. 12) in a study of the cultural factors involved in the high rate of infantile mortality in some rural areas of Colombia. She points out the lethargy that social and economic conditions have forced upon the country man. For instance when an infant dies, the parents say, "It was his destiny not to grow up."

With respect to the role of the individual in the process of modernization, Lerner (1964, p. 78) considered that either individuals and their environments modernize together or modernization cannot develop. If new institutions of political, economic, cultural behavior are to change in compatible ways, then inner coherence must be provided by the personality matrix which governs individual's behavior.

Harbison (1963, p. 140) claimed:

The progress of a nation depends first and foremost on the progress of its people. Unless it develops their spirit and human potentialities, it cannot develop much else--materially, economically, politically or culturally. The basic problem of most of the underdeveloped countries is not a poverty of natural resources but the underdevelopment of their human resources. Hence their first task must be to build up their human capital. To put it in more human terms, that means improving the education, skills and hopefulness, and thus the mental and physical health of their men, women and children.

Education, skills and hopefulness: in other words, what they know, what they can do, and the attitudes they hold toward national development in general--these are respects in which the people must change before the nation can change.

Schrepps (1964, p. 31) considered that the mobilizing of human resources requires a great deal of attention to what the population knows and thinks of national development, and especially to the encouragement of attitudes and social customs, and the provision of knowledge, which will be favorable to development.

There are two different kinds of sources of change in a community: (1) the internal source or immanent change originated from within the system with little or no external influence, and (2) the external source or contact change, introduced from sources external to the social system (Rogers, 1965, p. 9). The external source of change is more likely to

cause disturbances in a social system because of the new standards and values introduced into the system from different systems. It is in this step where fatalism, as an old established value in the social system, fights against the introduction of new values. The long experience of perceived incapacity to alter their lives and the acceptance of their fate does not permit them to understand the new position of power and individual control.

Aspects of Fatalism

Fatalism has been considered a barrier to change in developing countries. Arensberg and Niehoff (1964, pp. 167-168) described fatalism as "a characteristic of peasant societies, usually stemming from a real lack of ability to control events. The authors contrast the American attitudes of optimism and effort with non-Western values of endurance, passivity, pessimism, acceptance, pliancy and evasion." According to this consideration, fatalism can be defined as the individual's self-perceived lack of ability to control the future. People believe that events of their life are preordained and that little can be done to alter them.

Rogers (1965, p. 25) considered fatalism as "a passive view of the world, implying the feeling that an individual's efforts can not determine his future." Erasmus (1961, p. 52) described fatalism as an attitude of Latin American peasants toward death. He said:

. . . Much of the peasant's seeming apathy and unconcern results from the prevalent attitude that it does not really matter what is done to help a person, if his time has come to die. Life in a sense, is cheaper among many of the underprivileged peoples of the world because they have a much higher expectation of death than we do. If no one is to be blamed or made the scapegoat for illness and death, as is the case in areas where witchcraft is greatly feared, fatalism probably will be common."

Foster (1962, pp. 57-59) considered that in nonindustrial societies a very low degree of mastery over nature and social conditions has been achieved. Drought or flood is looked upon as a visitation from Gods or evil spirits whom man can propitiate but not control. Feudal forms of land tenure and nonproductive technologies may condemn a farmer to a bare subsistence living. Medical and social services are lacking and people die young. Under such circumstances it is not surprising that people have few illusions about the possibility of improving their lot. A fatalistic outlook, the assumption that whatever happens is the will of God or Allah, is the best adjustment the individual can make to an apparently hopeless situation.

Hunt (1957, p. 318) characterized the religious beliefs of underdeveloped countries as being of doubtful utility in producing modern industrial development. He states, "The tradition bound rigidity of Islam, the other worldly emphasis of Buddhism, the asceticism of Hinduism and the fiesta-laden Catholicism of countries with Spanish tradition may embody important teachings, but their emphasis is not calculated to provide industrious workers, thrifty capitalists, or daring promoters."

Considering all these different aspects of fatalism, Niehoff and Anderson (1965, pp. 7-11) have deduced three dimensions of fatalism:

(1) supernatural, (2) situational and (3) project negativism.

1. Supernatural

a. Theological: patterns of belief that stem from the theology of the traditional culture.

b. Magical: patterns of supernatural belief not derived from the dominant religion but stressing the manipulation of everyday affairs rather than ethical, cosmological or theological concepts. Magic is

normally manipulative. A member of the traditional society is not fatalistic in regard to his magical solutions. He believes they will produce results, although he may very well believe that the science-oriented solutions of change agents are useless.

2. Situational

Apathy based on a real understanding of limited possibilities for improvement, usually of an economic nature. This is the case in which the individual understands how poor and precarious his situation is and feels the need of improvement, but at the same time he realizes how far he is from the means that will permit his improvement. Seeman's (1959, pp. 783-791) description of powerless alienation is very close to this type of fatalism. He considered the notion of alienation as it originated in the Marxian view of the worker's conditions in a capitalist society. The worker is alienated to the extent that the prerogative and means of decision are expropriated by the ruling entrepreneurs. Alienation is considered then as the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes of reinforcements. The author considered alienation more applicable to the expectancies that have to do with the individual's sense of influence over socio-political events, political system, industrial economy, and international affairs.

Durkheim (Spaulding and Simpson, 1960, p. 283) considered anomie as the "case of disturbances of collective order which occur in times of rapid change. A new set of collective norms is slow in forming and individuals at the transitory period are left upon their unchecked appetites in competing for social and economic rewards." These same authors considered another type of fatalism, that of the individual

conscience being captive of alien, extra-systematic manipulation and regulation.

Sariola (1965, p. 2) in a study of fatalism among Colombian peasants thought that violence and rural despair in many areas of Latin America might be linked with fatalism rather than anomie, as Fals Borda suggested (Fals Borda, 1962, p. 276). Sariola concluded that fatalism, furthermore, appeared to coincide with a pessimistic outlook regarding progress. As urbanization increases, fatalism decreases. This view coincides with a conception of man as a rational being, capable of responding to the environment in an individually adaptative manner, depending on his individual capacity to plan, to administer his affairs, and to improve his work technique. Efforts to induce change in this approach are reduced to the mere task of adding useful new items to the arsenal of information the individual already possesses. The peasant feels himself part of a larger society which he is in but not altogether part of. This fact could be considered in the case of a rapid change in a sector of local population where the other sectors are not affected by the change; then a person loses the feeling of identification with the group and usually with the change of economic orientation. In general this type of fatalism in the developing countries is probably closely correlated with rural displacement to cities and the consequent disorientation resulting from the loss of village traditions, as well as the need to undertake new occupations and to operate in an unfamiliar system.

3. Project Negativism

Project negativism is defined as apathy toward development projects based on previous change project failures. This is a product of the

age of development rather than being a product of the traditional culture or of difficult conditions. This result is a consequence of development programs rather than of cultural factors. To avoid this consequence, the heads of new development projects must thoroughly know the cultures they are going to work with and develop programs that satisfy the needs of the communities.

In the present thesis, we will determine whether these three dimensions of fatalism exist empirically among the Colombian respondents.

Value Orientation and Its Relation to Fatalism

According to the Kluckhohn-Strodtbeck value orientation system, the concept of fatalism can be looked at from two different viewpoints. The first of these is the time orientation dimension of fatalism. The second is the man-nature dimension.

Kluckhohn and Strodtbeck (1961, p. 1) defined their value orientation theory in terms of the ways in which human beings solve common problems.

Value orientations are complex but definitely patterned (rank ordered) principles, resulting from the transactional interplay of three analytically distinguishable elements of the evaluative process: the cognitive, the affective and the directive elements, which give order and direction to the ever flowing stream of human acts and thoughts as these relate to the solution of common human problems.

Time orientation has been conceived of as a three dimensional concept: present, past and future. In this case a fatalistic society is considered to be primarily present oriented. They pay little attention to what has happened in the past and regard the future as both vague and unpredictable. Planning for the future is not their way of life. In this case a passive position toward the future leads to increased pessimism, and decreased interest in working for a better future.

The second approach derives from the idea that man must have a position in relation to the nature of his environment. In this case, man can be in mastery over nature, in harmony with nature or in subjugation to nature. In a fatalistic condition man is in subjugation to nature.

These two ways of considering fatalism, one the present orientation way of looking at the relationship between man and time, and the other, looking at fatalism as a subjugation to nature, are themselves interrelated. The most general concept is, perhaps, best derived by looking at the man-nature orientation. The way an individual is predisposed to react toward time-orientation can be derived by looking at how he in fact reacts in relation to the man-nature orientation. For the most part he reacts toward a man-nature orientation in a subjugated manner, it is possible to say that he is a fatalistic person in terms of time-orientation.

Paradigm of Fatalism and Modernization

For the purposes of this study, a descriptive analysis of fatalism is not sufficient. In order to understand the nature and the importance of fatalism it is necessary to relate it with other variables that can be considered relevant to the process of modernization. This kind of relation can be made at two levels:

1. Analyzing the possible conditions that can favor or promote the existence of fatalism. During the process of modernization people are encouraged to want more than they have, and many times they are encouraged to want more than they possibly get. This lack of equilibrium between aspirations and the satisfaction of aspirations can lead to

frustrations that will promote a fatalistic attitude.

Such a disposition acts as a deterrent to the process of modernization; thus one would expect that prior to changes in the direction of modernization the individual's fatalistic attitudes must undergo some change. The question to be asked now is, "What factors are likely to induce some degree of change in fatalism?" Lerner's model of modernization provides a basis for approaching the problem. He lists four antecedents of modernization; (1) literacy, (2) urbanism, (3) media participation, and (4) empathy (Lerner, 1958, p. 46). Since fatalistic individuals are not likely to engage in modern occupational behaviors (e.g., become more occupationally innovative), the probability of altering fatalistic attitudes through occupational reinforcements is not great. On the other hand becoming literate, empathic and consumers of the mass media may have the effect of increasing the degree of self-perceived control of one's own life, which is to say that the degree of fatalism is decreased. It is on such a basis that the present paradigm of modernization is hypothesized. As levels of functional literacy, empathy and mass media exposure increase, the level of fatalism will decrease (see Figure 1).

2. Analyzing the consequences of variations in the antecedent variables and fatalism. Fatalism will have an intervening function in the relationship between the antecedent and consequent variables in the modernization paradigm. According to Rogers' (1965, p. 616) and other studies of the process of modernization, six consequent variables were selected: innovativeness, educational aspirations, occupational aspirations, achievement motivation, dogmatism and formal participation. The direction of the paradigm establishes that as the levels of functional

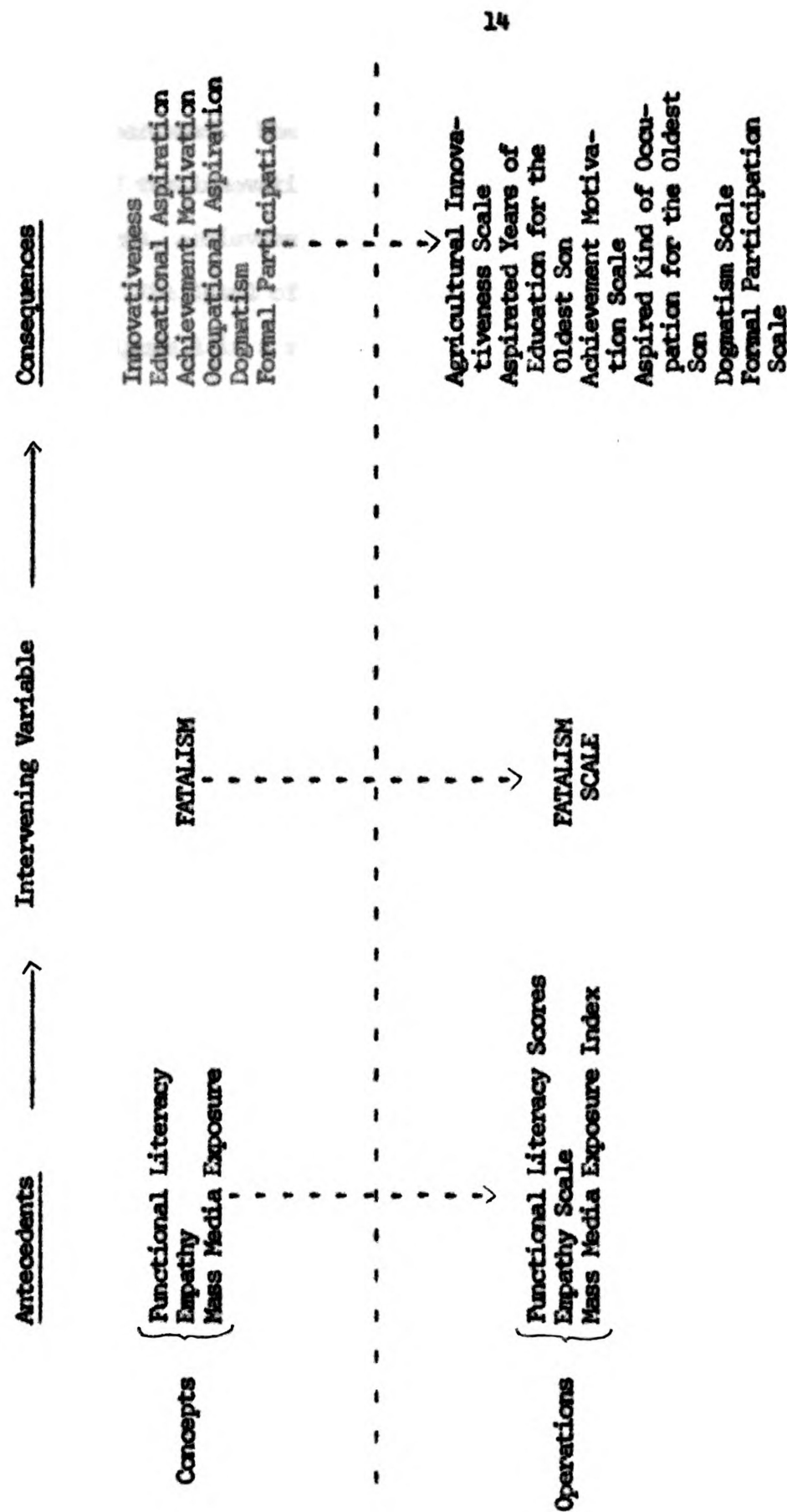


Fig. 1. Paradigm of the role of fatalism in the modernization process

literacy, empathy and mass media exposure increase, the level of fatalism is decreased. When the levels of fatalism are decreased, then the levels of the innovativeness, educational aspirations, occupational aspirations, achievement motivation and formal participation are increased. The level of dogmatism is decreased.

Figure 1 is a representation of both the conceptual analysis and the operational measurement procedures. One must caution against attempting to impute causality to such relationships. The fact that a given variable is said to intervene between two others is not in any way sufficient information to make causal inferences. Though the paradigm gives the illusion of time-order it is apparent that alteration or change in the value of the consequents may lead to corresponding changes in the antecedents.

Antecedents of Fatalism

The selected antecedents to be considered are functional literacy, empathy and mass media exposure.

Literacy was considered by Rogers and Herzog (1965, p. 5) as more than just the mechanical ability to read and write. A meeting of the experts on literacy convened by UNESCO in 1962 concluded that:

A person is literate when he has acquired the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his group and community, and whose attainments in reading, writing, and arithmetic make it possible for him to continue to use these skills toward his own and the community's development and for active participation in the life of his country.

In quantitative terms, the standard of attainment in functional literacy may be equated to the skills of reading, writing and arithmetic achieved after a set number of years of primary or elementary schooling.

The present study, realizing the weaknesses of the self-defined literacy measurement, is mainly concerned with functional literacy. Rogers and Herzog (1965, p. 7) defined functional literacy as "The ability to read and write adequately for carrying out the functions of the individual's role in his salient social system." For them, this definition implies that: (1) literacy is a process and (2) functional literacy is different for different roles.

Empathy is defined by Lerner (1958, p. 50) as "the capacity to see oneself in the other fellow's position." From the psychological point of view empathy is an ability to accurately infer the feelings and preferences of others on the basis of insight into one's own feelings and active imagination efforts.

The present consideration of empathy is that it is a learned characteristic. Lerner (1958, p. 54) indicates that empathy is a consciously learned skill partly dependent for its development upon the pervasion of mass communication. One such skill, the ability to participate in public affairs, is facilitated by the mass media which depict for the mass "new and strange situations" and which familiarize them with a range of opinions among which they can choose. Some people learn better than others the variation, reflecting their different skill in empathy.

Mass media are all impersonal means of communication by which visual and/or auditory messages are transmitted directly to audiences. Mass media as considered by Schramm (1964, p. 24), is a liberating force because it can break the bounds of distance and isolation and transport people from traditional society to the "great society."

Schramm (1964, p. 21) considered that any item of social change

must be considered on a very broad basis in order to anticipate secondary effects and the resistances. It is necessary to know the culture of the system and understand the pattern of life that the presumed change program is going to affect. What would a change mean to the people who are being asked to change?; this is the pertinent question.

Lerner (1963, pp. 327-356) considered that modernization is an interactional behavior system. It is a "style of life" whose components are interactive in the sense that the efficiency functioning in any of them is dependent upon the efficiency functioning in all the others. The components are behavioral in the sense that they operate only through the activity of individual human beings. They form a system in the sense that significant variation in the activity of one component will be associated with significant variation in the activity of all the other components. The approach taken in the present study is that a process of change can be initially started with the development of mass media, functional literacy and empathy, which will prepare the individual to behave appropriately in the transitional situation. Once one of the three factors is altered, the equilibrium of the system will be maintained only if the other two develop as well.

Lerner (1958, p. 46) speaks of communication factors, especially the mass media of the country, as a potent force for raising the empathetic ability of the population. It is this empathetic ability which enables them to enter the roles required for a modern society. In order to increase levels of empathy, Lerner considered one important prerequisite: literacy. He says that "raising literacy has tended to increase mass media exposure and increasing mass media exposure 'has

gone' with wider economic participation and political participation." This increase in economic and political participation may be thought of as a result of a decrease in the level of fatalism.

Exposure to mass media can contribute to a lowering of fatalism. By such exposure an individual is confronted with a wide range of ideas. At the same time, however, it is possible that if he is exposed to situations which are too unrealistic, too alien for him, he may remain or become more fatalistic. On the other hand, literacy and mass media exposure together can give to man a new point of view of the world. If it is possible to speak of a scientific point of view, such a view can facilitate a peasant's understanding of some of the relevant environmental relationships. With his mental world now broadened, he can make major decisions in his life by weighing his assets and his liabilities against each other. He would know then that many things can be controlled and changed by one's own effort. With this new concept of human power to control his life and his future, and with the possibility of a mental location in another's role, a peasant's level of fatalism is lowered.

In terms of the nature of fatalism, functional literacy, mass media exposure and empathy can be considered as prerequisites that determine the level of fatalism. A negative correlation can be expected between those variables and fatalism. As the level of these factors increases, the level of fatalism decreases. The joint effect of the three, induces a positive attitude toward change at the individual level. If by any means the individual can satisfy his motivations, then with repeated reinforcements he will become positively oriented toward modernization, but if the individual cannot satisfy his motivations, repeated

failures can work as negative reinforcers that will teach the individual to have a negative view of change. In other words, failures reinforce a fatalistic attitude. With this approach in mind, what can be considered as the consequences of a decrease in the level of fatalism?

Consequents of Fatalism

The selected consequents are the following variables:

Innovativeness

Innovativeness is "the degree to which an individual is relatively earlier in adopting new ideas than other members of his social system" (Rogers, 1962, p. 19). Niehoff (1959, p. 91) reported a fatalistic kind of explanation against the adoption of some methods of birth control among factory workers in India. When the people were questioned about the possibility of limiting their families, they said consistently that both the granting of the children and the means of providing for them were in the hands of deities. If the gods wanted them to live, they would be born and provided for, but if they died from malnutrition or sickness, that too was predestined. Peasants do not want to take the risk of adopting something new, since they believe that only supernatural forces can improve their conditions or since they have had frustrated experiences with adopting new ideas. An individual who adopts is waiting for returns at some time in the future, and this later hope can be one of the explanations of why the individual adopts new things. But a fatalistic individual with a lack of future orientation, finds it difficult to decide to adopt something new.

Educational Aspirations and Occupational Aspirations

Educational aspirations and occupational aspirations are affected by the level of fatalism. Educational aspirations and occupational aspirations are defined as the level of education and the kind of occupation desired by parents for their children. Only after peasants in isolated villages are in contact with the outside world of opportunities, can they be aware of the status levels which their children might achieve with a good education. As the person is exposed to mass media and has the ability to read, he understands that man can control his future and that man needs more education to compete with others in reaching a goal. Thus man understands that a higher level of education is needed. At this point he can realize that for him it is too late, but it is not too late for his children to be so educated. As the level of fatalism decreases, the level of educational and occupational aspiration increase.

Achievement Motivation

Achievement motivation, according to Neill (1963, p. 1), is "the value instilled in the individual through the socialization process, in which the individual feels a need or a desire to reach certain goals only for the satisfaction of reaching the goal and not for the rewards of the goal or end involved." Rogers and Neill (1964, p. 17) suggested that "low levels of aspirations, a lack of achievement motivation and a sense of fatalism may be highly functional for peasants whose opportunities have historically been severely limited, especially by pressure on their major resources: land." McClelland (1961, p. 76) stated that achievement motivation is "the desire to do well not so much for the sake of social recognition or prestige, but to attain an

inner feeling of personal accomplishment." Looking at this proposition in another way, it is possible to say that as individual levels of fatalism decrease because of a scientific understanding of the world, his levels of achievement motivation increase.

Dogmatism

According to Rokeach (1960, p. 61), "A system is defined to be closed (dogmatic) to the extent that there is a high magnitude of rejection of all disbelief subsystems, and isolation of beliefs, a high discrepancy in degree of differentiation between beliefs and disbeliefs systems, and little differentiation within the disbelief system." Tedrick (1965, p. 5) considered that theoretically the high dogmatic person has a relatively undifferentiated belief-disbelief system with the ability to isolate, or wall off, one belief system or subsystem from others. To some extent the high dogmatic person has difficulty in assimilating new information, particularly if the new information challenges a presently held central belief.

If it is considered that the fatalistic beliefs are integrated into the central belief system, then it is possible to ask "What is the relationship between fatalism and dogmatism?" The higher the level of fatalism, the stronger the fatalistic belief is included in the central belief system of a person. Then, as the person becomes less fatalistic, with a more rationalized understanding of his personal capacity, it is possible to argue that the person becomes less dogmatic.

Formal Participation

Formal participation in the present study is considered to be the degree to which a person is in contact with formal organizations

in his social system. The consideration of the importance of this fact can be analyzed in Lerner's words (1964, pp. 50-51):

Traditional society is non-participant—it deploys people by kinship into communities isolated from each other and from a center; . . . modern society is participant in that it functions by 'consensus'—individuals making personal decisions on public issues must concur often enough with other individuals they do not know to make possible a stable common governance. Especially important, for the participant style, is the enormous proportion of people who are expected to 'have opinions' on public matters and the corollary expectation of these people that their opinions will matter.

Hypotheses

From the foregoing theoretic position and research evidence, the following general hypotheses are derived:

General Hypothesis I: Degree of fatalism varies inversely with degree of functional literacy.

General Hypothesis II: Degree of fatalism varies inversely with degree of empathy.

General Hypothesis III: Degree of fatalism varies inversely with degree of mass media exposure.

General Hypothesis IV: Degree of innovativeness varies inversely with degree of fatalism.

General Hypothesis V: Degree of educational aspiration varies inversely with degree of fatalism.

General Hypothesis VI: Degree of occupational aspiration varies inversely with degree of fatalism.

General Hypothesis VII: Degree of achievement motivation varies inversely with degree of fatalism.

General Hypothesis VIII: Degree of dogmatism varies directly with degree of fatalism.

General Hypothesis IX: Degree of formal participation varies
inversely with degree of fatalism.

CHAPTER III

METHODOLOGY

The Sample and the Study Setting

Data for the present study are part of the research project entitled, "A Field Experiment on the Role of Opinion Leaders in the Diffusion of Innovations in Three Colombian Neighborhoods," which was begun in October, 1963. Following a survey of several villages, two were selected, one with traditional norms, Cuatro Esquinas, and one with relatively modern norms, Pueblo Viejo. A third community was chosen, San Rafael, which had relatively modern norms. The three veredas are located about 60 miles west of Bogotá, in the foothills of the Andes Mountains in Central Colombia. All three communities are generally characterized by minifundia, with farmers operating small sized farms on steep slopes by using intensive farming methods. Higher levels of literacy, adoption of innovations, and urban contact typified the modern villages.

Data Collection

Data were gathered from the chief decision-maker of each farm by means of personal interviews. The interviewing was done by students from the Facultad of Sociología, Universidad Nacional de Colombia. In each of the three communities, similar data gathering methods were utilized.

The research project was divided into two parts as far as the interviewing was concerned. The first wave of interviews descended on the three communities in order to gather sociometric data to facilitate the choice of opinion leaders in the community as well as to secure socioeconomic baseline information on the peasant population. The interview schedule was developed after a period of field observations and discussions with key informants. The interviewing was done in the Fall of 1963. The second wave of interviewing was completed during the month of September, 1965. A total of 136 interviews out of the 160 that were collected on the first phase of the research, were collected in this second part.

The Interview Schedule

The interview schedule was prepared for the pre-test before the research team left for Colombia. While certain portions of the interview schedule were changed, the overall objectives remained essentially the same, except for the development and refinement of the measures of fatalism, dogmatism, interpersonal trust, social distance, empathy, cosmopolitaness, social participation, source credibility and interpersonal relationships, for general application in peasant communities.

Pre-Test

The pre-test was done in Bojacá, a community similar in composition and location to the three communities. The primary objective of the pre-test was to see if the interview schedule would work under field conditions. Combined with a few deletions made before the pre-test, the deletions and alterations made following the trip to Bojacá, were deemed sufficient for the final form of the interview schedule.

Certain scale items were eliminated which did not adequately measure the concept which they purported to measure, and some items that the interviewers found to be incomprehensible to the peasants during the pre-test were also eliminated.

Operationalization of Variables

Dependent Variable

The major criterion variable of the present investigation is fatalism. Fatalism was defined previously as a passive view of the world implying the feeling that an individual's efforts cannot determine his future. In order to measure this concept a ten-item scale (see Appendix A) was developed which consisted of items covering the three different dimension of fatalism considered by Niehoff and Arensberg (1964, pp. 167-172): supernatural, situational and project negativism. The fatalism scale was subjected to the following analyses:

1. Reliability

Reliability is the degree to which a scale will consistently produce similar results when administered to the same individuals at different times. The method used to test reliability in the present study was the split-half method. With this method, the items in a scale are divided into two subscales and the correlation between those two subscores is computed. It is argued that this constitutes or is the same as administering the scales to the same individuals at two different times. The items in one subscale are usually determined by selecting the odd numbered items; the even numbered items are then summed for the other subscale. However, since each of the subscales have only one-half as many items as the original scale, a lower coefficient of reliability

results. A correction is made by the use of the modified Spearman-Brown correction formula. This formula was developed to estimate the degree of reliability a scale would display if it had not been divided in half.

When subjected to the Spearman-Brown correction formula, the split-half method yielded a coefficient of reliability of $\pm .516$.

2. Multidimensionality

One of the objectives of the study was to analyze the scale to determine whether the hypothesis of three dimensions considered by Nishoff and Arensberg was tenable. The supernatural dimension was measured with items 2,3,7,8 and 9; the situational dimension was measured with items 5 and 6 (see Appendix A).

The evidence clearly indicates the existence of the three dimensional concept of fatalism (see Table 1, Table 2, and Table 3 respectively). These tables indicate that all the items measuring the supernatural dimension (2,3,7,8 and 9) loaded very highly on Factor I. Items 4 and 10 that were designed to measure the situational dimension loaded very highly on Factor II. Item 1 was also intended and designed to measure the situational dimension but showed no dominant loading on any of the three factors. Item 6, as a measure of project negativism, loaded highly on the third factor. Item 5 which was also designed to measure project negativism, while loading fairly heavily on Factor III, also loaded quite highly on Factor I, which is to say it is measuring the supernatural as well as the project negativism dimension.

Independent Variables

This part will be organized listing first the general and the empirical hypotheses and then explaining how the independent variables

were operationalized.

Table 1. Principal axis solution—factor loading for fatalism items

Item no.	Factors		
	1	2	3
1	.5571	.4054	-.2603
2	.6335	.2080	.0587
3	.6549	-.0525	.2757
4	-.0848	.7409	.2702
5	.6172	.0949	-.5030
6	-.1395	.1957	.7927
7	.7324	-.1763	.2189
8	.7161	-.2527	.1975
9	.4400	.2387	.0854
10	-.1447	.5981	-.2202
Proportion of the variance explained by the factor	28.12%	13.16%	12.44%

Table 2. Varimax rotation—factor loading for fatalism items

Item no.	Factors			h ²
	1	2	3	
1	.4708	.3920	-.4088	.5424
2	.6317	.1699	-.1416	.4480
3	.7033	-.1051	.0444	.5077
4	.0599	.7248	.3167	.6292
5	.4272	.0955	-.6718	.6429
6	.1379	.1497	.8030	.6862
7	.7493	-.2287	-.0402	.6154
8	.7216	-.3026	-.0585	.6156
9	.4599	.2091	-.0519	.2579
10	-.1649	.6181	-.1333	.4271
Proportion of the variance explained by the factor	26.41%	13.20%	14.11%	

These results permit the conclusion that the concept of fatalism is three dimensional—as hypothesized and measured.

Table 3. Quartimax rotation—factor loading for fatalism items

Item no.	Factors			h ²
	1	2	3	
1	.5262	.3886	-.3384	.5424
2	.6459	.1465	-.0686	.4480
3	.6900	-.1403	.1089	.5077
4	.0577	.7050	.3590	.6292
5	.4973	.1076	-.6197	.6429
6	.0612	.1040	.8195	.6862
7	.7392	-.2617	.0229	.6154
8	.7104	-.3332	-.0020	.6156
9	.4712	.1894	.0055	.2579
10	-.1242	.6310	-.1163	.4271
Proportion of the variance explained by the factor				
	27.18%	13.25%	13.30%	

These results permit the conclusion that the concept of fatalism is three dimensional—as hypothesized and measured.

General Hypothesis I

General Hypothesis I: Degree of fatalism varies inversely with degree of functional literacy.

Empirical Hypothesis I: Fatalism scores vary inversely with functional literacy scores.

Functional literacy was measured by handing each respondent a small card during the interview on which was printed a short sentence (in Spanish), "The man moved his arm rapidly in a gesture of respect." The number of the six key words that the respondent was able to read correctly was used as a measure of functional literacy.²

²This measure of functional literacy was originally suggested by Alfredo Mendez and Fred B. Waisanen (1964), in a Paper presented at the Ninth Congress of the Interamerican Society of Psychologists, Miami, and had been used successfully in various forms with peasants respondents in Costa Rica, Mexico, Guatemala, Chile and India.

General Hypothesis II

General Hypothesis II: Degree of fatalism varies inversely with degree of empathy.

Empirical Hypothesis II: Fatalism scores vary inversely with empathy scores.

Empathy was measured with a five-item empathy scale, that permitted the person to put himself in the roles of a village leader, an extension agent, a district official, the national minister of education and the president of Colombia.

General Hypothesis III

General Hypothesis III: Degree of fatalism varies inversely with degree of mass media exposure.

Empirical Hypothesis III: Fatalism scores vary inversely with mass media exposure scores.

Mass media exposure was measured by an index of contact with radio, newspapers, cinema, magazines and television. The respondent's indication of degree of exposure to each medium, in terms of number of radio shows listened to per week, etc., were combined into a mass media exposure index by use of a type of standard scores called "sten scores" (Canfield, 1951).

General Hypothesis IV

General Hypothesis IV: Degree of innovativeness varies inversely with degree of fatalism.

Empirical Hypothesis IV: Innovativeness scores vary inversely with fatalism scores.

Innovativeness was indexed by compiling a list of recently-

introduced ideas and asking the respondents how many of these he has adopted and when. The relative time at which he adopts these practices, as compared to other respondents in the same village, is a measure of his innovativeness. In this case it was measured by a score indicating the composite time of adoption of sixteen new farm practices (fertilizers, machinery, insecticides, etc.).

General Hypothesis V

General Hypothesis V: Degree of aspiration of education varies inversely with degree of fatalism.

Empirical Hypothesis V: Aspiration of education scores vary inversely with fatalism scores.

Educational aspiration was measured by asking the respondent the number of years of education they wished their oldest child to have.

General Hypothesis VI

General Hypothesis VI: Degree of occupational aspiration varies inversely with degree of fatalism.

Empirical Hypothesis VI: Occupational aspiration scores vary inversely with fatalism scores.

Occupational aspiration was measured by asking the respondent the kind of occupation they wished their oldest child to have. The occupation was coded in terms of levels of occupational prestige.

General Hypothesis VII

General Hypothesis VII: Degree of achievement motivation varies inversely with degree of fatalism.

Empirical Hypothesis VII: Achievement motivation scores vary

Achievement motivation was measured with sentence completion items. An example of those items is: "My greatest aspiration in life. . . ." Originally the scale had 14 items, but some of them were dropped after an analysis for internal consistency. Eight items were included in the final version of the scale.

General Hypothesis VIII

General Hypothesis VIII: Degree of dogmatism varies inversely with degree of fatalism.

Empirical Hypothesis VIII: Dogmatism scores vary directly with fatalism scores.

Dogmatism was measured with an attitudinal scale of 10 items. The items were selected from the short-form of the scale (20 item version) used by Troldahl and Powell. The short-form was developed from the original forty item version used by Rokeach by selecting items with the highest item-to-total score correlation. In the selection of the items an effort was also made to have items from the different dimensions of dogmatism such as: belief-disbelief dimension, central-peripheral dimension, and time perspective dimension.

General Hypothesis IX

General Hypothesis IX: Degree of formal participation varies inversely with degree of fatalism.

Empirical Hypothesis IX: Formal participation scores vary inversely with fatalism scores.

Formal participation was measured by the active participation of the individual in the different organizations of his community such as the cooperative, the 4 H clubs, and the local board.

Control Variables

Two control variables which were incorporated in the present analysis were age and status. They were included in order to determine if the independent variables were related to fatalism regardless of age or status. It was suspected because of the nature of the concept of fatalism, that age and status could intervene between the dependent and the independent variables.

These two variables were selected as control variables and not as independent variables, because from the conceptual point of view they are not part of the interest of the present study. They are constant factors that are not possible to change in the process of modernization.

Age was selected because it is assumed that as age increases a real understanding of the limited possibilities for improvement, usually of an economic nature, increases. Age also increases the apathy toward development projects based on the personal experience of previous project failures. With increasing age, a larger number of contacts with project failures is possible.

Status was the other control variable selected because usually people with low status tend to accumulate a larger amount of frustration and deprivation. This fact can induce the individual to be suspicious of his capacity to determine his future. An opposite feeling would take place in individuals with high status who feel their future is in their own hands and who realize that they have the power necessary to make their future in a way they like.

Statistical Analysis

All data relevant to the hypotheses are assumed to have "interval" qualities and are thus amenable to produce moment correlation analysis.

Data for all the hypotheses were analyzed using zero order product moment correlations of: (1) antecedents and fatalism; (2) consequents and fatalism; and (3) antecedents and consequents.

The second step was to compute first order partial correlations between antecedents and consequents partialling out the effects of fatalism. It was the comparison of the zero order correlations of the antecedents and consequents variables with the partial correlations of these same variables which explicates the intervening properties of fatalism.

The third kind of analysis was to control for age and status in the relationship between antecedents and fatalism, and consequents and fatalism.

The fourth step in the analysis will be the computation of a series of multiple correlations in which mass media exposure, empathy and functional literacy will be utilized as predictors of fatalism. Similarly, selected correlates of modernization, including fatalism, will be used in combination to predict the indices of modernization.

CHAPTER IV

FINDINGS

The present chapter will present tests of the general and empirical hypotheses stated in Chapters II and III. Each of the independent variables were tested for their relationship to the dependent variable (fatalism).

General Hypothesis I

General Hypothesis I: Degree of fatalism varies inversely with degree of functional literacy.

Empirical Hypothesis I: Fatalism scores vary inversely with functional literacy scores. The zero order correlation (Table 4) between fatalism and literacy is $-.304$, which is more than the $.206$ required for significance at the one per cent level. The hypothesis is supported.

General Hypothesis II

General Hypothesis II: Degree of fatalism varies inversely with degree of empathy.

Empirical Hypothesis II: Fatalism scores vary inversely with empathy scores. The zero order correlation between fatalism and empathy is $-.214$, which is more than the $.206$ required for significance at the one per cent level. The hypothesis is supported.

Table 4. Matrix of intercorrelations of the dependant, independent and control variables

Variables ^a	1	2	3	4	5	6	7	8	9	10	11	12	13
1	---	-.304**	-.214**	-.306**	-.027	-.396**	-.179*	-.122	-.191*	.422**	.096	.161*	-.318**
2		---	.363**	.399**	.207**	.426**	.273**	.177*	.272**	-.040	-.018	-.295**	.346**
3			---	.520**	.268**	.366**	.417**	.268**	.279**	-.134	.135	-.186*	.595**
4				---	.320**	.563**	.419**	.304**	.315**	-.177*	.003	-.212**	.557**
5					---	.251**	.175*	.178*	.048	.022	.298**	-.157*	.408**
6						---	.477**	.326**	.245**	-.134	-.027	-.189*	.507**
7							---	.429**	.141	-.168*	.022	-.190*	.403**
8								---	.051	.060	.069	-.211*	.276**
9									---	-.098	-.012	-.214**	.290**
10										---	.109	-.010	-.123
11											---	-.141	.178
12												---	-.263**
13													---

^aSignificant at the five per cent level^{ab}Significant at the one per cent level^aThe variables include:

- | | | | |
|-------------|-------------------------|----------------------------|--------------------------|
| 1. Fatalism | 4. Mass media exposure | 7. Educational aspiration | 10. Dogmatism |
| 2. Literacy | 5. Total innovativeness | 8. Occupational aspiration | 11. Formal participation |
| 3. Empathy | 6. Home innovativeness | 9. Achievement motivation | 12. Age |
| | | | 13. Status |

General Hypothesis III

General Hypothesis III: Degree of fatalism varies inversely with degree of mass media exposure.

Empirical Hypothesis III: Fatalism scores vary inversely with mass media exposure scores. The zero order correlation between fatalism and mass media exposure is $-.214$, which is more than the $.206$ required for significance at the one per cent level. The hypothesis is supported.

General Hypothesis IV

General Hypothesis IV: Degree of innovativeness varies inversely with degree of fatalism.

Empirical Hypothesis IV: Innovativeness scores vary inversely with fatalism scores. The zero order correlation between fatalism and innovativeness is $-.027$, which is less than the $.147$ required for significance at the five per cent level. The hypothesis is not supported.

General Hypothesis V

General Hypothesis V: Degree of educational aspiration varies inversely with degree of fatalism.

Empirical Hypothesis V: Educational aspiration scores vary inversely with educational fatalism scores. The zero order correlation between fatalism and aspiration for education is $-.179$, which is more than the $.147$ required for significance at the five per cent level. The hypothesis is supported.

General Hypothesis VI

General Hypothesis VI: Degree of occupational aspirations varies inversely with degree of fatalism.

Empirical Hypothesis VI: Occupational aspiration scores vary inversely with fatalism scores. The zero order correlation between fatalism and aspiration of education is $-.122$, which is less than the $.147$ required for significance at the five per cent level. The hypothesis is not supported.

General Hypothesis VII

General Hypothesis VII: Degree of achievement motivation varies inversely with degree of fatalism.

Empirical Hypothesis VII: Achievement motivation scores vary inversely with fatalism scores. The zero order correlation between fatalism and achievement motivation is $-.191$, which is more than the $.147$ required for significance at the five per cent level. The hypothesis is supported.

General Hypothesis VIII

General Hypothesis VIII: Degree of dogmatism varies directly with degree of fatalism.

Empirical Hypothesis VIII: Dogmatism scores vary directly with fatalism scores. The zero order correlation between fatalism and dogmatism is $+.422$, which is more than the $.206$ required for significance at the one per cent level. The hypothesis is supported.

General Hypothesis IX

General Hypothesis IX: Degree of formal participation varies inversely with degree of fatalism.

Empirical Hypothesis IX: Formal participation scores vary inversely with fatalism scores. The zero order correlation between

fatalism and formal participation is .096, which is less than the .147 required for significance at the five per cent level. The hypothesis is not supported.

Controlling on Status and Age

If by controlling for the variation caused by a third variable, the correlation between a dependent and an independent variable is reduced or increased, then this may be taken as some evidence for the claim that this third variable, in this case—status and age—does in fact intervene between the dependent and the independent variables.

In this case it was predicted that when controlling on status, the correlation is going to be decreased because status was considered an inflating intervening variable. When controlling on age, it was predicted an increase in the correlation would result because age was considered a depressant variable in the relationship between the dependent and independent variables.

Controlling on Status

1. General Hypothesis I

General Hypothesis I: Degree of fatalism varies inversely with degree of functional literacy.

Empirical Hypothesis I: Fatalism scores vary inversely with functional literacy scores. The zero order correlation between fatalism scores and functional literacy scores is $-.304$ (significant at the one per cent level), showing that fatalism account for 9.2 per cent of the variance in functional literacy. The first order partial correlation (Table 5) between fatalism scores and functional literacy scores controlling on status is $-.216$ (significant at the five per cent level).

This partial correlation is significantly lower at the five per cent level than the zero order correlation between fatalism scores and functional literacy scores. This reduction shows that social status intervenes in the relationship between fatalism and functional literacy.

2. General Hypothesis II

General Hypothesis II: Degree of fatalism varies inversely with degree of empathy.

Empirical Hypothesis II: Fatalism scores vary inversely with empathy scores. The zero order correlation between fatalism scores and empathy scores is $-.214$ (significant at the one per cent level), showing that fatalism accounts for 4.6 per cent of the variance in empathy. The first order partial correlation between fatalism scores and empathy scores controlling on status is $-.033$ (not significantly different from zero), which is significantly lower at the one per cent level than the zero order correlation between fatalism scores and empathy scores. This reduction shows that social status does intervene in the relationship between fatalism and empathy.

3. General Hypothesis III

General Hypothesis III: Degree of fatalism varies inversely with degree of mass media exposure.

Empirical Hypothesis III: Fatalism scores vary inversely with mass media exposure scores. The zero order correlation between fatalism scores and mass media exposure scores is $-.306$ (significant at the one per cent level), showing that fatalism accounts for 9.4 per cent of the variance in mass media exposure. The first order partial correlation between fatalism scores and mass media exposure scores controlling on

Table 5. Zero order correlation and first order partial correlation (controlling on age and status) of the dependent and the independent variables

First order partial correlations with fatalism									
Independent variables	Controlling on status					Controlling on age			
	Zero r	C.D. ^a	Partial with status	Z	C.D. Value	Zero r	C.D.	Partial with age	Z
									value
Literacy	-.304 ^{***}	9.2	-.216*	4.7	4.21	-.304 ^{***}	9.2	-.273 ^{***}	7.5
Empathy	-.214 ^{***}	4.6	-.033	0.1	4.76	-.214 ^{***}	4.6	-.190*	3.6
Mass media exposure	-.306 ^{***}	9.4	-.163	2.7	4.21	-.306 ^{***}	9.4	-.283 ^{***}	8.0
Innovativeness	-.027	0.1	.121	1.5	3.90	-.027	0.1	-.001	0.0
Educational aspiration	-.179*	3.2	-.059	0.3	3.21	-.179*	3.2	-.149	2.2
Occupational aspiration	.122	1.5	-.005	0.0	3.15	-.122	1.5	-.133	1.8
Achievement motivation	.191*	3.6	-.110	1.2	2.15	.191*	3.6	.163	2.7
Dogmatism	.422 ^{***}	17.8	.407 ^{***}	16.6	-0.31	.422 ^{***}	17.8	.429 ^{***}	18.4
Formal participation	.096	.9	-.163	2.6	1.72	.096	.9	.114	1.3
									2.30

^aC.D. is the coefficient of determination or r , which expresses the per cent of variance in the two variables that they have in common.

^{*}Significant at the five per cent level.

^{***}Significant at the one per cent level.

correlation between fatalism scores and educational aspiration scores controlling in social status is $-.059$ (not significantly different from zero), which is significantly lower at the five per cent level than the zero order correlation between fatalism scores and educational aspiration scores. This reduction shows that social status does intervene in the relationship between fatalism and educational aspiration.

6. General Hypothesis VI

General Hypothesis VI: Degree of occupational aspirations varies inversely with degree of fatalism.

Empirical Hypothesis VI: Occupational aspiration scores vary inversely with fatalism scores. The zero order correlation between fatalism scores and occupational aspiration scores is $-.122$ (not significantly different from zero), showing that fatalism account for 1.5 per cent of the variance in occupational aspiration. The first order partial correlation between fatalism scores and occupational aspiration scores controlling on social status is $-.005$ (not significantly different from zero), which is not significantly lower at the five per cent level than the zero order correlation between fatalism scores and occupational aspiration scores. This lack of change shows that social status does not intervene in the relationship between fatalism and occupational aspiration scores.

7. General Hypothesis VII

General Hypothesis VII: Degree of achievement motivation varies inversely with degree of fatalism.

Empirical Hypothesis VII: Achievement motivation scores vary inversely with fatalism scores. The zero order correlation between fatalism

with fatalism scores. The zero order correlation between fatalism scores and formal participation scores is .036 (not significantly different from zero), showing that fatalism account for .9 per cent of the variance in formal participation. The first order partial correlation between fatalism scores and formal participation scores controlling on social status is .163 (not significantly different from zero), which is significantly greater at the five per cent level than the zero order correlation between fatalism scores and formal participation scores. This increment shows that fatalism does intervene in the relationship between fatalism and formal participation.

In the present study, social status works as an intervening variable in the relationship between the dependent variable fatalism and the independent variables functional literacy, empathy, mass media exposure, innovativeness, educational aspiration, and formal participation. Social status does not intervene the relationship between the dependent variable fatalism and the independent variables dogmatism and occupational aspiration.

Controlling on Age

1. General Hypothesis I

General Hypothesis I: Degree of fatalism varies inversely with degree of functional literacy.

Empirical Hypothesis I: Fatalism scores vary inversely with functional literacy scores. The zero order correlation between fatalism scores and functional literacy scores is $-.304$ (significant at the one per cent level), showing that fatalism account for 9.2 per cent of the variation in functional literacy. The first order correlation between

fatalism scores and functional literacy scores controlling on age is $-.273$ (significant at the one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between fatalism scores and functional literacy scores. This lack of change shows that age does not intervene in the relationship between fatalism and functional literacy.

2. General Hypothesis II

General Hypothesis II: Degree of fatalism varies inversely with degree of empathy.

Empirical Hypothesis II: Fatalism scores vary inversely with degree of empathy. The zero order correlation between fatalism scores and empathy scores is $-.214$ (significant at the one per cent level) showing that fatalism account for 4.6 per cent of variance in empathy. The first order partial correlation between fatalism scores and empathy scores controlling on age is $-.190$ (significant at the one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between fatalism scores and empathy scores. This lack of change shows that age does not intervene the relationship between fatalism and empathy.

3. General Hypothesis III

General Hypothesis III: Degree of fatalism varies inversely with degree of mass media exposure.

Empirical Hypothesis III: Fatalism scores vary inversely with mass media exposure scores. The zero order correlation between fatalism scores and mass media exposure scores is $-.306$ (significant at the one per cent level), showing that fatalism account for 9.4 per cent of the

variance in mass media exposure. The first order partial correlation between fatalism scores and mass media exposure scores controlling on age is $-.283$ (significant at the one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between fatalism scores and mass media exposure scores. This lack of change shows that age does not intervene in the relationship between fatalism and mass media exposure.

4. General Hypothesis IV

General Hypothesis IV: Degree of innovativeness varies inversely with degree of fatalism.

Empirical Hypothesis IV: Innovativeness scores vary inversely with fatalism scores. The zero order correlation between fatalism scores and innovativeness scores is $-.027$ (not significantly different from zero), showing that fatalism account for .1 per cent of the variance in innovativeness. The first order partial correlation between fatalism scores and innovativeness scores partialling on age is $-.001$ which is not significantly lower at the five per cent level than the zero order correlation between fatalism scores and innovativeness scores. This lack of change shows that age does not intervene in the relationship between fatalism and innovativeness.

5. General Hypothesis V

General Hypothesis V: Degree of educational aspiration varies inversely with degree of fatalism.

Empirical Hypothesis V: Educational aspiration scores vary inversely with fatalism scores. The zero order correlation between fatalism scores and educational aspiration scores is $-.179$ (significant

at the five per cent level), showing that fatalism account for 3.2 per cent of the variance in educational aspiration. The first order partial correlation between fatalism scores and educational aspiration scores controlling on age is $-.149$ (not significantly different from zero), which is significantly greater at the five per cent level than the zero order correlation between fatalism scores and educational aspiration scores.

6. General Hypothesis VI

General Hypothesis VI: Degree of occupational aspiration varies inversely with degree of fatalism.

Empirical Hypothesis VI: Occupational aspiration scores vary inversely with fatalism scores. The zero order correlation between fatalism scores and occupational aspiration scores is $-.122$ (not significantly different from zero), showing that fatalism account for 1.5 per cent of the variance in occupational aspiration. The first order partial correlation between fatalism scores and occupational aspiration scores controlling on age is $-.133$ (not significantly different from zero), which is significantly greater at the five per cent level than the zero order correlation between fatalism scores and occupational aspiration scores. This increment shows that age does not intervene in the relationship between fatalism and occupational aspiration.

7. General Hypothesis VII

General Hypothesis VII: Degree of achievement motivation varies inversely with degree of fatalism.

Empirical Hypothesis VII: Achievement motivation scores vary inversely with fatalism scores. The zero order correlation between

fatalism scores and achievement motivation scores is $-.191$ (significant at the five per cent level), showing that fatalism account for 3.2 per cent of the variance in achievement motivation. The first order partial correlation between fatalism scores and achievement motivation scores controlling on age is $-.163$ (not significantly different from zero), which is not significantly lower at the five per cent level than the zero order correlation between fatalism scores and achievement motivation scores. This lack of change shows that age does not intervene in the relationship between fatalism and achievement motivation.

8. General Hypothesis VIII

General Hypothesis VIII: Degree of dogmatism varies directly with degree of fatalism. The zero order correlations between fatalism scores and dogmatism scores is $.422$ (significant at the one per cent level), showing that fatalism account for 17.8 per cent of the variance on fatalism. The first order partial correlation between fatalism scores and dogmatism scores partialling on age is $.429$ (significant at the one per cent level), which is not significantly higher at the five per cent level than the zero order correlation between fatalism scores and dogmatism scores. This lack of change shows that age does not intervene in the relationship between fatalism and dogmatism.

9. General Hypothesis IX

General Hypothesis IX: Degree of formal participation varies inversely with degree of fatalism.

Empirical Hypothesis IX: Formal participation scores vary inversely with fatalism scores. The zero order correlation between fatalism scores and formal participation scores is $.096$ (not significantly

different from zero), showing that fatalism account for .9 per cent of the variance in formal participation. The first order partial correlation between fatalism scores and formal participation scores controlling on age is .114 (not significantly different from zero), which is significantly greater at the one per cent level than the zero order correlation between fatalism scores and formal participation scores. This increment shows that age does intervene in the relationship between fatalism and formal participation.

In the present study, age does not intervene in the relationships between the dependent variable of fatalism and the independent variables of innovativeness, occupational aspirations, achievement motivation and dogmatism. Age does intervene in the relationship between the dependent variable of fatalism and the independent variables of educational aspiration and formal participation.

Fatalism as an Intervening Variable

The following section of the present chapter will report the results of the statistical analysis done in order to detect the function of fatalism as an intervening variable between antecedents and consequents (Table 6).

1. The zero order correlation between functional literacy scores and innovativeness scores is .207 (significant at the one per cent level), showing that literacy account for 4.2 per cent of the variance in innovativeness. The first order partial correlation between literacy scores and innovativeness scores controlling on fatalism is .208 (significant at the one per cent level), which is not significantly greater at the five per cent level than the zero order correlation between literacy and

Table 6. Zero order correlations and first order partial correlations (controlling on fatalism) of antecedent variables with consequences

Consequents	Correlations with antecedents											
	Literacy			Empathy			Mass media					
	Zero order	C.D.	Partial	Zero order	C.D.	Partial	Zero order	C.D.	Partial	C.D.	Partial	C.D.
Innovative- ness	.207**	4.2	.208*	4.3	.268**	7.2	.303**	9.2	.320**	10.2	.331**	10.9
Educational aspiration	.273**	7.5	.234*	5.5	.417**	17.4	.394**	15.5	.419*	19.6	.391**	15.3
Occupational aspiration	.177*	3.1	.147	2.2	.268**	7.2	.251**	6.3	.306*	9.4	.284**	8.1
Achievement motivation	.272**	7.5	.230*	5.3	.279**	7.8	.259**	6.7	.316**	9.9	.277**	7.7
Dogmatism	-.040	.16	-.196*	3.8	-.13*	1.8	-.049	.2	-.177*	3.1	-.056	.3
Formal participation	-.018	3.4	.290**	8.4	.136	1.8	.353**	12.5	.003	ns	.034	ns

* Significant at the five per cent level.

** Significant at the one per cent level.

innovativeness. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of functional literacy and the consequent variable of innovativeness.

2. The zero order correlation between literacy scores and educational aspiration scores is .273 (significant at the one per cent level), showing that literacy accounts for 7.15 per cent of the variance in educational aspiration. The first order partial correlation between literacy scores and educational aspiration scores controlling on fatalism is .234 (significant at the five per cent level), which is not significantly lower at the five per cent level than the zero order correlation between functional literacy scores and educational aspiration scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of functional literacy and the consequent variable educational aspiration.

3. The zero order correlation between functional literacy scores and occupational aspiration scores is .177 (significant at the five per cent level), showing that functional literacy accounts for 3.1 per cent of the variance in occupational aspiration. The first order partial correlation between functional literacy scores and occupational aspiration scores is .147 (not significantly different from zero), which is not significantly lower at the five per cent level than the zero order correlation between literacy scores and occupational aspiration scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of functional literacy and the consequent variable of occupational aspiration.

4. The zero order correlation between functional literacy scores and achievement motivation scores is .272 (significant at the one per

1. The first step in the process of creating a new product is to identify a market need.

2. The second step is to develop a concept that addresses the market need.

3. The third step is to create a prototype of the product.

4. The fourth step is to conduct market research to determine if there is a demand for the product.

5. The fifth step is to develop a business plan for the product.

6. The sixth step is to secure financing for the product.

7. The seventh step is to manufacture the product.

8. The eighth step is to distribute the product to the market.

9. The ninth step is to monitor the product's performance in the market.

10. The tenth step is to make adjustments to the product as needed.

11. The eleventh step is to continue to improve the product over time.

12. The twelfth step is to ensure that the product is profitable.

13. The thirteenth step is to protect the product's intellectual property.

14. The fourteenth step is to build a strong brand for the product.

15. The fifteenth step is to establish a strong customer base for the product.

16. The sixteenth step is to create a strong competitive advantage for the product.

17. The seventeenth step is to ensure that the product is scalable.

18. The eighteenth step is to ensure that the product is sustainable.

19. The nineteenth step is to ensure that the product is socially responsible.

20. The twentieth step is to ensure that the product is environmentally friendly.

21. The twenty-first step is to ensure that the product is safe for consumers.

22. The twenty-second step is to ensure that the product is of high quality.

23. The twenty-third step is to ensure that the product is reliable.

24. The twenty-fourth step is to ensure that the product is durable.

25. The twenty-fifth step is to ensure that the product is easy to use.

26. The twenty-sixth step is to ensure that the product is attractive.

27. The twenty-seventh step is to ensure that the product is innovative.

28. The twenty-eighth step is to ensure that the product is unique.

29. The twenty-ninth step is to ensure that the product is competitive.

30. The thirtieth step is to ensure that the product is successful.

cent level), showing that literacy accounts for 7.5 per cent of the variance in achievement motivation. The first order partial correlation between functional literacy scores and achievement motivation scores controlling on fatalism is .230 (not significantly different from zero), which is not significantly lower at the five per cent level than the zero order correlation between literacy and achievement motivation. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of functional literacy and the consequent variable of achievement motivation.

5. The zero order correlation between functional literacy scores and dogmatism scores is $-.040$ (not significantly different from zero), showing that functional literacy explains the .16 per cent of the variance in dogmatism. The first order partial correlation between functional literacy scores and dogmatism scores controlling on fatalism is $-.196$ (significant at the five per cent level), which is significantly greater at the five per cent level than the zero order correlation between functional literacy and dogmatism. This increment shows that fatalism does intervene in the relationship between the antecedent variable of functional literacy and the consequent variable of dogmatism.

6. The zero order correlation between functional literacy scores and formal participation scores is $-.018$ (not significantly different from zero), showing that functional literacy accounts for 3.4 per cent of the variance in formal participation. The first order correlation between functional literacy scores and formal participation scores controlling on fatalism is .290 (significant at the one per cent level), which is significantly greater at the one per cent level than the zero order correlation between functional literacy scores and formal partici-

pation scores. This increment shows that fatalism does intervene in the relationship between the antecedent variable functional literacy and the consequent variable of formal participation.

7. The zero order correlation between empathy scores and innovativeness scores is .268 (significant at the one per cent level), showing that empathy accounts for 7.2 per cent of the variance in innovativeness. The first order partial correlation between empathy scores and innovativeness scores controlling on fatalism is .303 (significant at the one per cent level) which is not significantly greater at the five per cent level than the zero order correlation between empathy scores and innovativeness scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of empathy and the consequent variable of innovativeness.

8. The zero order correlation between empathy scores and educational aspiration scores is .417 (significant at the one per cent level), showing that empathy accounts for 17.4 per cent of the variance in educational aspiration. The first order partial correlation between empathy scores and educational aspiration scores controlling on fatalism is .334, (significant at the one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between empathy scores and educational aspiration scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of empathy and the consequent variable of educational aspiration.

9. The zero order correlation between empathy scores and occupational aspiration scores is .268, (significant at the one per cent level), showing that empathy accounts for 7.2 per cent of the variation in

occupational aspiration. The first order partial correlation between empathy scores and occupational aspiration scores controlling in fatalism is .251 (significant at the one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between empathy scores and occupational aspiration scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of empathy and the consequent variable of occupational aspiration.

10. The zero order correlation between empathy scores and achievement motivation scores is .279 (significant at the one per cent level), showing that empathy accounts for 7.8 per cent of the variance in achievement motivation. The first order partial correlation between empathy scores and achievement motivation scores controlling on fatalism is .259 (significant at the one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between empathy scores and achievement motivation scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of empathy and the consequent variable of achievement motivation.

11. The zero order correlation between empathy scores and dogmatism scores is $-.134$ (not significantly different from zero), showing that empathy accounts for 1.8 per cent of the variance in dogmatism. The first order partial correlation between empathy scores and dogmatism scores controlling on fatalism is $-.049$ (not significantly different from zero), which is significantly lower at the five per cent level than the zero order correlation between empathy scores and dogmatism scores. This reduction shows that fatalism does intervene in the relationship

between the antecedent variable of empathy and the consequent variable of dogmatism.

12. The zero order correlation between empathy scores and formal participation scores is .136 (not significantly different from zero), showing that empathy accounts for 1.8 per cent of the variance in formal participation. The first order partial correlation between empathy scores and formal participation scores controlling on fatalism is .353 (significant at the one per cent level), which is not significantly greater at the five per cent level than the zero order correlation between empathy scores and formal participation scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of empathy and the consequent variable of formal participation.

13. The zero order correlation between mass media exposure scores and innovativeness scores is .320 (significant at the one per cent level), showing that mass media exposure accounts for 10.2 per cent of the variance in innovativeness. The first order partial correlation between mass media exposure scores and innovativeness scores controlling on fatalism is .331 (significant at the one per cent level), which is not significantly greater at the five per cent level than the zero order correlation between mass media exposure scores and innovativeness scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable of innovativeness.

14. The zero order correlation between mass media exposure scores and occupational aspiration scores is .419 (significant at the one per cent level), showing that mass media exposure accounts for 19.6 per cent

of the variance in educational aspiration. The first order partial correlation between mass media exposure scores and educational aspiration scores controlling on fatalism is .391 (significant at the one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between mass media exposure scores and educational aspiration scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable of educational aspiration.

15. The zero order correlation between mass media exposure scores and occupational aspiration scores is .306 (significant at the one per cent level), showing that mass media exposure accounts for 9.4 per cent of the variation in occupational aspiration. The first order partial correlation between mass media exposure scores and occupational aspiration scores controlling on fatalism is .284 (significant at the one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between mass media exposure scores and occupational aspiration scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable of occupational aspiration.

16. The zero order correlation between mass media exposure scores and achievement motivation scores is .316 (significant at the one per cent level), showing that mass media exposure accounts for 9.9 per cent of the variance on achievement motivation. The first order partial correlation between mass media exposure scores and achievement motivation scores controlling on fatalism is .277 (significant at the

one per cent level), which is not significantly lower at the five per cent level than the zero order correlation between mass media exposure scores and achievement motivation scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable of achievement motivation.

17. The zero order correlation between mass media exposure scores and dogmatism scores is $-.177$ (significantly different from zero), showing that mass media exposure explains 3.1 per cent of the variance in dogmatism. The first order partial correlation between mass media exposure scores and dogmatism scores controlling on fatalism is $.056$ (not significantly different from zero), which is significantly lower at the one per cent level than the zero order correlation between mass media exposure scores and dogmatism scores. This reduction shows that fatalism does intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable of dogmatism.

18. The zero order correlation between mass media exposure scores and formal participation scores is $.003$ (not significantly different from zero). The first order partial correlation between mass media exposure scores and formal participation scores controlling on fatalism is $.034$ (not significantly different from zero), which is not significantly greater at the five per cent level than the zero order correlation between mass media exposure scores and formal participation scores. This lack of change shows that fatalism does not intervene in the relationship between the antecedent variable of mass media exposure and the consequent variable of formal participation.

According to the results reported in this section of the chapter, fatalism only intervenes in the relationship between three antecedent

variables: empathy, functional literacy and mass media exposure, in their relationships with the consequent variable of dogmatism.

Predicting Fatalism

Having noted consistently significant zero order correlations between the antecedent variables and fatalism, an attempt to predict fatalism with the antecedents is in order. More specifically, the question is "What variable or combined variables account for most of the variation in fatalism?" The predictor variables are the antecedent variables. Table 7 shows the proportion of variance accounted for by each of the antecedent variables.

Table 7. Literacy, empathy and mass media exposure as predictors of fatalism

Variables	Regression coefficient	Beta weight	Significance level
Mass media exposure	-.133	-.206	.04
Empathy	-.074	-.030	.75
Functional literacy	-.537	-.210	.02

The best predictor of fatalism in this case is functional literacy, and then mass media exposure. Functional literacy and empathy are highly interrelated with one another. In order to predict fatalism, it will be necessary to use literacy and mass media exposure with other variables. These variables could be level of education, size of farm, knowledgeability, cosmopolitaness, dogmatism, frustration, alienation, etc.

Predicting the Consequent Variables

Nine variables including fatalism, were used in order to predict the consequent variables: innovativeness, educational aspiration, occupational aspiration, achievement motivation, dogmatism and formal participation. The predictors were: fatalism, knowledgeability, cosmopolitaness, contact with extension agent, level of satisfaction, size of farm, level of living, years of education of head of household, and farm efficacy. Table 8 shows the effectiveness of the predictors to predict innovativeness. The multiple correlation is .129. According to Table 8, size of farm and literacy are the best predictors of innovativeness. Fatalism is not a predictor of innovativeness with these data.

Table 8. Predicting innovativeness

Variables	Regression coefficient	Beta weight	Significance level
Fatalism	.178	.120	.21
Knowledgeability	.866	.111	.32
Cosmopolitaness	-.028	-.052	.62
Contact with extensionist	.294	.132	.12
Level of satisfaction	-.917	-.217	.18
Size of farm	.142	.216	.03
Level of living	.104	.021	.83
Years of education of head of household	.174	.038	.72
Efficacy	1.21	.314	.05

Table 9 shows the effectiveness of fatalism and other variables to predict educational aspiration.

The multiple correlation is .40. According to Table 9, knowledge-

ability and years of education of head of household are the only significant predictors of educational aspiration. Fatalism is not a predictor of educational aspiration.

Table 9. Predicting educational aspiration

Variables	Regression coefficient	Beta weight	Significance level
Fatalism	.037	.093	.25
Knowledgeability	.634	.360	.00
Cosmopolitaness	.000	.090	.29
Contact with extentionist	-.025	-.049	.49
Level of satisfaction	.136	.141	.30
Size of farm	.016	.108	.19
Level of living	.131	.116	.21
Years of educa- tion of head of household	.188	.178	.05
Efficacy	-.084	-.096	.46

Table 10. Predicting occupational aspiration

Variables	Regression coefficient	Beta weight	Significance level
Fatalism	-.002	-.008	.89
Knowledgeability	.060	.051	.66
Cosmopolitaness	.005	.074	.49
Contact with extentionist	.006	.017	.83
Level of satisfaction	.044	.069	.68
Size of farm	.009	.091	.38
Level of living	.064	.084	.48
Years of educa- tion of head of household	.109	.153	.16
Efficacy	.001	.001	.94

Table 10 shows the effectiveness of fatalism and other variables to predict occupational education.

The multiple correlation is .073. According to Table 10 none of the selected variables predict occupational aspiration at a level significantly different from zero.

Table 11 shows the role of fatalism and other variables in predicting achievement motivation.

Table 11. Predicting achievement motivation

Variables	Regression coefficient	Beta weight	Significance level
Fatalism	-.049	-.097	.32
Knowledgeability	.504	.194	.09
Cosmopolitaness	.019	.132	.20
Contact with extentionist	-.016	-.021	.79
Level of satisfaction	-.144	-.102	.54
Size of farm	-.009	-.041	.69
Level of living	.343	.206	.08
Years of educa- tion of head of household	-.102	-.066	.54
Efficacy	-.043	-.033	.82

The multiple correlation is .119. According to Table 11 none of the selected variables predict achievement motivation at a level significantly different from zero.

Table 12 shows the role of fatalism and other variables to predict dogmatism. The multiple correlation is .260. Table 12 shows that fatalism, size of farm and farm efficacy are predictors of dogmatism at a level significantly different from zero.

Table 13 shows the efficacy of fatalism and other variables to predict formal participation.

The multiple correlation is .258. According to Table 13, none of the selected variables predict fatalism at a level significantly

Table 12. Predicting dogmatism

Variables	Regression coefficient	Beta weight	Significance level
Fatalism	.220	.089	.00
Knowledgeability	-.202	.103	.55
Cosmopoliteness	.017	.095	.32
Contact with extentionist	.030	.080	.68
Level of satisfaction	-.245	.150	.35
Size of farm	-.009	.091	.69
Level of living	.485	.103	.02
Years of educa- tion of head of household	-.128	.097	.50
Efficacy	.483	.144	.04

different from zero.

Table 13. Predicting formal participation

Variables	Regression coefficient	Beta weight	Significance level
Fatalism	.042	-.125	.37
Knowledgeability	-.302	.090	.28
Cosmopoliteness	.000	.000	.95
Contact with extentionist	.095	.136	.12
Level of satisfaction	.125	.094	.58
Size of farm	-.014	-.066	.52
Level of living	.162	.104	.37
Years of educa- tion of head of household	-.096	-.066	.55
Efficacy	.068	.056	.72

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The purpose of the present study was to determine the role of fatalism in the process of modernization. Fatalism was conceptualized as a three dimensional concept, the dimensions being (1) supernatural, (2) situational and (3) project negativism; and was defined as the individual self perceived lack of ability to control his future. The sample chosen for the present study consisted of 136 farmers in three different Colombian communities. San Rafael and Pueblo Viejo exhibited more modern characteristics and Castro Esquinas more traditional characteristics. A Likert type scale was used to measure fatalism, the dependent variable. Zero-order, first-order and multiple correlations were used to test the nine major hypotheses.

The objective of the present thesis were:

1. To develop a conceptual definition of fatalism.
2. To operationalize the concept of fatalism, developing a scale to measure it and to determine the reliability and multidimensionality of the scale.
3. To develop a paradigm of modernization, to indicate how the concept fatalism is related to the process of modernization.

4. To determine the relationships between fatalism and the selected antecedents of fatalism and modernization such as functional literacy, empathy and mass media exposure.
5. To determine the relationships of fatalism and the selected consequences of fatalism such as dogmatism, innovativeness, educational aspiration, achievement motivation, and formal participation.
6. To determine the extent to which mass media exposure, empathy and functional literacy predict fatalism.
7. To determine the extent to which selected correlates of modernization, including fatalism, predict the indices of modernization.

There were nine general hypotheses in the present thesis. The dependant variable in each hypothesis was fatalism and the independent variables were functional literacy, empathy, mass media exposure, innovativeness, educational aspirations, occupational aspirations, achievement motivation, dogmatism and formal participation. In addition fatalism was postulated to be an intervening variable between the antecedents functional literacy, empathy and mass media exposure--and the consequents--innovativeness, educational aspirations, occupational aspirations, achievement motivation, dogmatism and formal participation. Multiple correlation analyses were carried out to determine the extent to which functional literacy, empathy and mass media exposure predicted fatalism and to determine the extent to which selected correlates of modernization, including fatalism, predicted the indices of modernization.

Findings and Interpretation

Six of the nine general hypotheses were supported. The major findings are listed as follows:

- I. The general hypothesis that fatalism is inversely related to the degree of literacy was supported.
- II. The general hypothesis that fatalism is inversely related to the degree of empathy was supported.
- III. The general hypothesis that fatalism is inversely related to the degree of mass media exposure was supported.
- IV. The general hypothesis that fatalism is inversely related to the degree of innovativeness was not supported.
- V. The general hypothesis that fatalism was inversely related to the degree of occupational aspirations was supported.
- VI. The general hypothesis that fatalism is inversely related to the degree of occupational aspirations was not supported.
- VII. The general hypothesis that fatalism was inversely related to the degree of achievement motivation was supported.
- VIII. The general hypothesis that fatalism is directly related to the degree of dogmatism was supported.
- IX. The general hypothesis that fatalism is inversely related to the degree of formal participation was not supported.

For Hypotheses I, II, III, V, VII and VIII, the findings agreed with the predicted position, i.e., the six zero order correlations were significantly different from zero. The zero order correlations for Hypotheses IV, VI and IX were not significantly different from zero.

However, all these correlations were in the predicted direction.

The failure to establish the expected relationship in Hypotheses IV, VI and IX might be due to the following reasons: (1) the present thesis was exploratory in nature and there was little past research to guide its design; (2) the variables were poor predictors, the percentages of the variance explained were generally very low.

The findings of all the nine hypotheses will be explained in more detail. The following interpretations are based mainly on the nature of the dependent and the independent variables and on the results of the statistical analysis.

General Hypothesis I: Degree of fatalism varies inversely with the degree of functional literacy.

Empirical Hypothesis I was supported. Fatalism is inversely related to literacy. Generally speaking, literacy was an important determinant in the individual levels of fatalism. Functional literacy as a skill can give the individual the ability to rationalize about the nature of himself and his own capacities to manage his life.

When controlling the relationship of fatalism and functional literacy on status, it was found that social status does affect this relationship. This finding suggests that the effect of fatalism on functional literacy is minimal and that the strength of the zero order correlation is a function of status. Further evidence of this is considered by the correlation between status and functional literacy (.35).

When controlling the relationship of fatalism and literacy on age, it was found that age does not affect this relationship.

General Hypothesis II

General Hypothesis II: Degree of fatalism varies inversely with degree of empathy.

Empirical Hypothesis II was supported. Generally speaking, empathy was an important determinant of the individual level of fatalism. Empathy may give the individual the ability to organize and control his life according to his perception of other individuals and to his perception of how they may perceive him.

When controlling the relationship of fatalism and literacy on status, it was found that social status does affect this relationship. This finding suggests that the effects of fatalism on empathy are minimal and that the strength of the zero order correlation is a function of status. Further proof of this is evidenced by the correlation between status and empathy (.595).

In this case as in the following cases, the fact that status affects the relationship between the dependent and independent variables reflects the existence of important socio-cultural-economic factors in the process of modernization. Since fatalism and status, the latter a composite measure of socio-cultural-economic factors, are highly co-related (-.32) we would expect status to have considerable effect on the hypothesized relationships.

Age does not affect the relationship between empathy and functional literacy.

General Hypothesis III

General Hypothesis III: Degree of fatalism varies inversely with degree of mass media exposure.

Empirical Hypothesis III was supported. Mass media exposure was an important determinant of the individual level of fatalism. Mass media exposure can give the individual the ability to know how other individuals live and how they solve the kind of problems which daily confront them. This understanding will permit the individual to use different alternatives in the organization of his life. Status does affect the relationship between fatalism and mass media exposure. This finding suggests that the effects of fatalism on mass media exposure are minimal and that the strength of the zero order correlation is a function of status. Further proof of this is evidenced by the correlation between status and mass media exposure (.557).

Age does not affect this relationship.

General Hypothesis IV

General Hypothesis IV: Degree of innovativeness varies inversely with degree of fatalism.

Empirical Hypothesis IV was not supported. Fatalism is not a predictor of the individual level of innovativeness. It may be other factors such as norms of the community, economic capacity, need of the innovation which will predict the individual levels of innovativeness. This seems to suggest that social pressures rather than individual characteristics are more important predictors of innovativeness in the sample studied.

Status does not affect the relationship between fatalism and innovativeness.

Age does not affect this relationship.

General Hypothesis V

General Hypothesis V: Degree of educational aspiration varies inversely with degree of fatalism.

Empirical Hypothesis V was supported. Fatalism is a predictor of educational aspiration for children. The higher the level of fatalism, the lower the level of educational aspirations. Educational aspirations for one's children presumably reflect in the respondent a modern outlook. Such an attitude reflects to some extent, a feeling that the individual has some control over his behavior and over future conditions. The fact that he realizes his children may achieve such a state suggests that if he were in their position he could do likewise. The control variable status does affect the relationship between fatalism and educational aspiration. This finding suggests that both fatalism and status affect educational aspiration.

This means that the individual's social position in his community can lessen the effect of fatalism upon the level of educational aspiration. Age too intervenes in this relationship. When these two variables intervene in the relationship it is hard to state if this hypothesis is true or not unless a more complex multivariate analysis is used to detect the relationship between the concepts.

General Hypothesis VI

General Hypothesis VI: Degree of occupational aspiration varies inversely with degree of fatalism.

Empirical Hypothesis VI was not supported. Fatalism in this case is not a predictor of the individual's desired level of occupational prestige for his children. Again it would appear that factors other than

fatalism predict levels of occupational aspirations. When controlling on status it was found that status does not affect the relationship between fatalism and occupational aspiration. Age does not affect this relationship either. Maybe occupational aspiration will be better predicted by norms of the community and other social system variables. Since the three communities of the present study are agricultural communities, it might be that the community levels of occupation aspirations is for agricultural work only.

General Hypothesis VII

General Hypothesis VII: Degree of achievement motivation varies inversely with degree of fatalism.

Empirical Hypothesis VII was supported. Achievement motivation in this case is a predictor of fatalism. Achievement motivation is the impetus to get ahead in life which implies that the person believes he has some control over his future life. In this case status affects the relationship between fatalism and achievement motivation. This finding suggests that the effects of fatalism on achievement motivation are minimal and that the strength of the zero order correlation is a function of status. Further proof of this is evidenced by the correlation between status and achievement motivation (.289).

This means that fatalism will be better predicted when social status is used as a predictor. Age does not affect the relationship.

General Hypothesis VIII

General Hypothesis VIII: Degree of dogmatism varies inversely with degree of fatalism.

Empirical Hypothesis VIII was supported. Dogmatism in general is a very good predictor of fatalism; the best predictor in the present study. This relationship is not influenced by either age or status. Knowing the individual's level of dogmatism it is possible to predict the individual's level of fatalism. The individual who cannot establish a clear differentiation between his belief and disbelief system is not capable of a rational and clear analysis of his capacities as an individual to plan and control his future.

General Hypothesis IX

General Hypothesis IX: Degree of formal participation varies inversely with degree of fatalism.

Empirical Hypothesis IX was not supported. Formal participation is not a predictor of fatalism. In this case status does not affect the relationship between fatalism and formal participation but age does affect the relationship. Age could be in this case a better predictor of formal participation. According to a general observation in the community, an explanation for the individual's lack of formal participation would be the following: (1) the individual's lack of time to participate; (2) the time of the meeting--generally at night when people are tired and prefer to rest.

On the other hand it is possible to consider regardless of the individual level of fatalism, that the inhabitants of the three communities had a low tendency to communicate and to participate in organizations that were new for them and that had no meaning for them.

Conclusions

Three general conclusions can be drawn from the foregoing analysis.

1. Fatalism is not an intervening variable in the process of modernization, when empathy, functional literacy and mass media exposure are the antecedents and the consequents are innovativeness, educational aspiration, occupational aspiration, achievement motivation, formal participation and dogmatism.
2. Status does affect the relationship between the dependent variable of fatalism and the independent variables. This means that the strength of the relationship between the dependent and the independent variables is in part due to status. But age is much less important as an intervening variable between fatalism and other modernization variables.
3. According to the results of the multiple correlation analyses, the antecedents of mass media exposure, functional literacy and empathy are poor predictors of fatalism. According to the results of multiple correlation analyses, fatalism is not a strong predictor (when combined with other predictor variables) of the consequent variables of innovativeness, educational aspiration, occupational aspiration, achievement motivation and formal participation. Fatalism is a relatively good predictor of dogmatism.

Future Research

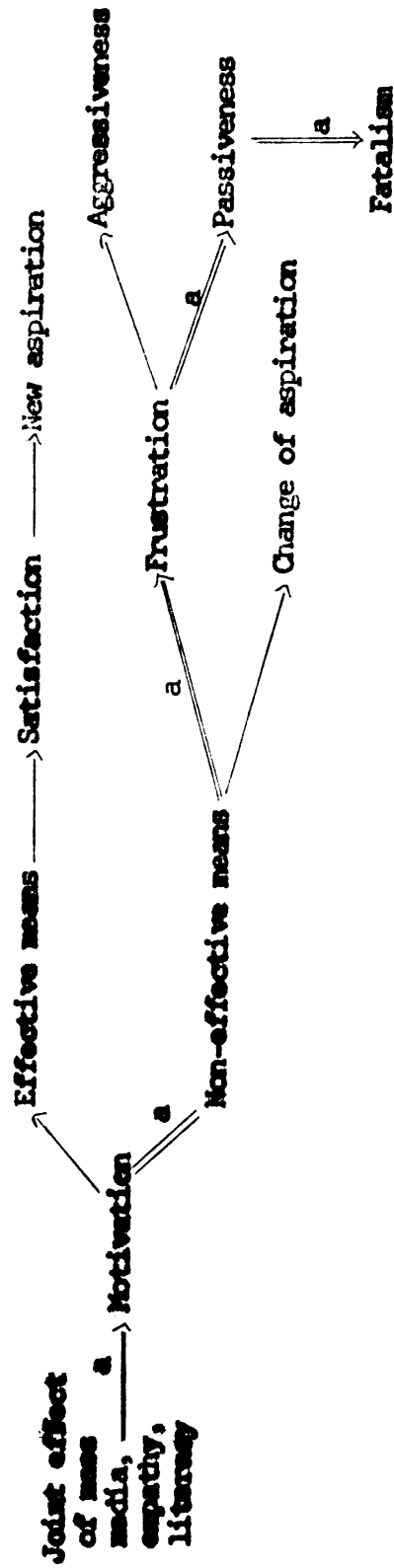
The findings of the present investigation are suggestive of further research. Throughout the present study it was questioned whether the joint effect of mass media, literacy and empathy at the individual level would be related to the individual level of fatalism.

What happens when the joint effect of literacy, empathy and mass media act to decrease the individual's level of fatalism, but the environment in which the individual is behaving does not permit him to satisfy his aspirations? The joint effect of empathy, literacy and mass media can teach people in developing countries of the materialistic gaps between themselves and the more developed countries in the world. If this phenomenon does in fact occur, then it is possible to go on to question what the audience does with the perceived gaps.

Figure 2 starts with the joint effect of mass media, empathy and literacy which motivate the individual to satisfy a new need. To satisfy this motivation, an effective means is necessary. When this means does not exist or is not effective, the person becomes frustrated. In this case two different responses are possible: aggression or passiveness. If the person responds passively, then a fatalistic attitude develops.

Frustration which occurs as a result of the existence of a goal that cannot be satisfied refers to the individual's perception of two factors: his aspirations and the lack of means to satisfy them. These subjective perceptions are the result of external stimuli as well as the individual's personal perceptual processes. The perceptual processes that filter the external stimuli can in turn be influenced by the drive state of the individual. Therefore, since desires and goals refer directly to aspirations, the factors that influence the individual's subjective evaluative process must be taken into account. In this light it is possible to see the connection between the individual's aspirations and the degree of frustration.

The relationship between aspirations and passiveness, as well as between aspiration and frustration, is inverse. If aspirations are looked



^aThese relationships reflect the general approach to conceptualizing fatalism that was utilized in the present thesis.

Fig. 2 Paradigm of the possible development of fatalism

upon as a kind of motivation, this connection will be more clear, given that motivations require an active position of the individual in order for him to derive satisfaction. As the individual becomes frustrated with respect to the satisfaction of a motivation, he becomes passively activated to satisfy that motivation.

The following hypotheses could be used in future research in order to test the general relationships between the joint effects of mass media exposure, empathy and literacy and the level of fatalism.

1. The greater the level of mass media exposure, empathy and literacy, the greater the individual's aspirations.
2. The greater the exposure to mass media, empathy and literacy, the greater the awareness of the materialistic differences between developed and developing countries.
3. Given that aspirations include goals that require some specific means to achieve satisfaction, the greater the perceived accessibility of means to satisfy aspirations, the lower the level of frustration.
4. The longer the period of frustration, the higher the level of fatalism.

Implications for Action

The findings of the present study do not permit conclusive statement regarding the role of fatalism in the process of modernization. However, the evidence clearly suggests that fatalism is related to such variables as empathy, mass media exposure, functional literacy, educational aspiration, achievement motivation and dogmatism.

Since these variables are considered important in modernization,

change agencies might well take level of fatalism into account in their attempts to influence people. In particular, attention ought to be given to the various dimensions of fatalism, for variation on these dimensions may well dictate different change agent strategies. Accordingly, the following strategies for change agents are suggested.

1. Know the relevance of the change introduced at the communal and at the individual level. Generally change agents are concerned about this problem at the group level and not at the individual level. This specific knowledge will permit them, during the process of introducing the change, to focus their attention on those individuals with less personal or economic possibilities for achieving the goals established by the program of change.
2. Have a knowledge as profound as possible of the ways that previous programs of change have been accepted or rejected in the community. Which of them have been successful and which of them have been failures. In both cases it will be good for the change agent to know the main reasons for either success or failure. This knowledge will permit him to avoid the possible source of failure and to put more attention on that factor of change favoring the acceptance of the new situation.
3. Make a rational analysis of the possible new situation that is desired. What are the advantages, what are the disadvantages, and what are the ways of achieving the new status desired by the change agent?

APPENDIX: THE SCALE

Fatalism Scale Items

- 1.** The success in business of a person depends on his luck and not in his intelligence.
- 2.* When an epidemic or bad luck arrives man has to endure it.
- 3.* When man is born, his life is determined and he can not modify it.
- 4.** New techniques and machines work better than good weather in assuring good crops.
- 5.*** Only if I win a lottery can I better my conditions.
- 6.*** Man can plan the future because the future depends on man.
- 7.* It is better to accept the things as they come and not to plan for the future.
- 8.* To make plans for the future will cause unhappiness.
- 9.* During his life, it is better for man to work than to have good luck.
- 10.** When a man behaves badly, illness will punish him.

* Items used to measure the supernatural dimension of fatalism.

** Items used to measure the situational dimensions of fatalism.

*** Items used to measure the project negativism dimension of fatalism.

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