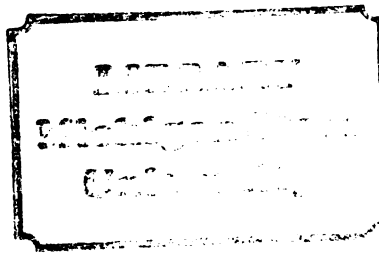


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AN ANALYSIS OF POLYMORPHIC OPINION
LEADERSHIP IN EASTERN NIGERIAN COMMUNITIES

By
Efiong Ben Attah

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Communication

1968

ABSTRACT

AN ANALYSIS OF POLYMORPHIC OPINION LEADERSHIP IN EASTERN NIGERIAN COMMUNITIES

by Efiiong B. Attah

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For nearly two decades there have been increasing attempts in developing countries to improve conditions of living. Research done in connection with methods of speeding development has shown that local influential people form an important factor in the successful introduction of change. Although much research has been done to find the extent to which opinion leadership in a community affects the adoption of new ideas, practically no research has been done to find the relationship of polymorphic opinion leadership to modernization. The present study attempts to determine whether polymorphic leadership can be measured by two polymorphism indexes, and the extent to which such polymorphism is related to modernizing behavior among Eastern Nigerian village leaders. The two measures of polymorphism used are: polymorphism consistency, and the number of leadership roles combined by leaders.

Polymorphism is the degree to which an individual combines leadership activities for different issues or types of roles. Polymorphism consistency attempts to measure the tendency for leaders to exert a similar level of influence for several issues. The leadership characteristics studied in relation to polymorphism in the present study are life cycle, level of education, socio-economic style of living, agricultural innovativeness, economic rationality, knowledgeability

about agricultural innovations, opinionatedness, cosmopolitaness, mass media exposure and formal group participation.

Polymorphism consistency is indexed by weighted scores averaged across eight roles. Deviations of each role from the mean sociometric score for each leader are averaged. This score is then subtracted from 99, the highest possible weight for the perfectly consistent person. The resulting score gives the level of consistency of the perception of the respondent's leadership behavior.

Eight hundred and thirty-four respondents from seventy-one village communities in six subcultural areas in Eastern Nigeria were personally interviewed. Variables that were measured by several items were factor-analyzed. The data were analyzed by the use of zero-order produce moment correlations and the hypotheses were then tested by use of the F-test.

Five of the twenty general hypotheses were confirmed. The overall result of the study casts doubt on the assumption that Eastern Nigerian leaders who are more polymorphic are more modern and polymorphic leadership is an exclusive feature of economically underdeveloped societies having similar social structural and value systems.

Accepted by the faculty of the Department
of Communication, College of Communication Arts,
Michigan State University, in partial fulfillment of
the requirements for the Master of Arts degree.


Director of Thesis

ACKNOWLEDGMENTS

The research reported in this thesis is a result of the cooperation and contributions of several people. My indebtedness is expressed to Dr. Everett M. Rogers, my major professor and friend, not only for introducing me to the field of communication, but also for his close guidance during my graduate study. I also extend my sincere appreciation and thanks to Dr. Hideya Kumata and Dr. Vincent Farace for their guidance and encouragement during the present study. Both were members of my thesis committee.

The present thesis would not have been possible without the joint sponsorship of the United States Agency for International Development and the Department of Communication at Michigan State University. The data reported herein were gathered through the cooperation of both institutions as part of a three-country research project on the Diffusion of Innovations in Rural Societies. I am also grateful for the fellowship offered me by this AID-MSU research project.

I wish to thank, among others, the following members of the staff and friends who worked on the Diffusion Project in Nigeria: Dr. Arthur Niehoff, Dr. Gerald Hursh, Neils Roling, Graham Kerr, Gabriel Idigo, and Ema Oraekwu, the coding staff and the interviewers. The cooperation of the Information Division of the Ministry of Agriculture in Eastern Nigeria is also appreciated.

Sincere thanks are extended to Dr. Arthur Niehoff, Dr. Gerald Hursh, Robert Keith and Joe Ascroft who contributed substantially by

criticism and suggestions to the definition and development of this thesis.

The analysis of these data would have been impossible to accomplish in the present form and size without the assistance of the computer staff of the Department of Communication. I am particularly grateful to Gerrit DeYoung and Mrs. Anita Immele and her staff for their friendship and services.

Finally, this thesis is dedicated to my parents and people who keep encouraging me and desire for more growth in Nigeria.

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CHAPTER I

INTRODUCTION

In recent times, particularly since about 1950, the peoples of much of the contemporary world have been faced with the urgent need for improved conditions of living. The problem for the developing world is not that of seeing improved living conditions as less than desirable, but that of undertaking to satisfy needs arising from their new desires. In most of these nations the rudiments of modern living are already in operation. The patterns of living are fundamentally similar to those of the more advanced countries. There are differences in levels of attainment of desired ends, the rate at which these levels change, and the psychological factors that affect human behavior in general. Within the less developed nations there are persons who have adopted and demonstrated the efficiency of many aspects of the material and mental attainments of the more advanced societies.

The need in developing societies is largely to increase not only the rate at which individuals join the group of adopters of new techniques in their communities, and the rate at which new ideas are adopted, but also the level at which these individuals and ideas operate. One of the preconditions for acquiring this kind of societal function is spontaneous adaptability, creativity and receptivity of new ideas. In the developing world it is only the exceptional who have acquired these

modern attitudes. In most cases they constitute two categories of people: those who rejected the traditional life, and those who are still linked in part to the traditional system. Both may pursue the same ends, but the latter are different by being strategically located in the social system, so that they can affect and be affected by other people within it. In this category are the relatively few who can serve as communication channels for successful introduction of new ideas into the populace.

The needs of these "new" societies are clearly expressed by the report of the United Nations Department of Economic and Social Affairs (1965) on the World Social Situation of the Development Decade (1961-1970). This report regrets, among other failures, "the disappointing performance in agriculture and food production." A major obstacle to development "has been the failure to involve the population at large in a nation-wide process of change and development." (U. N. D. E. S. A., 1965 pp. VII - III)

Perhaps the most promising method of getting the local population involved in the development process is by using local leaders who exert positive interpersonal influence for change among members of the community. At this stage the need is for a non-specialist who can and is well placed to persuade the local population in a variety of ways. The next stage occurs when there is need for specialists to direct particular types of behavior. The former is an orientation kind of effort and the latter is largely of a performance type. The first can be done by a local leader, the other by a specialist or professional called a change agent. Both may work in the community.

The importance of the local leader has been the implicit basis of much research on the change process. It appears that not only are leaders needed, but also these leaders must constitute a type conducive to efficient functioning: they must influence the largest number of followers over the widest possible behavioral areas with a minimum of effort.

Generally, changed behavior in one area of life also involves changes in closely related sets of behavior. The introduction, for instance, of a new kind of food crop must be followed by changes in food values, unless the food is produced completely for export; otherwise the crop cannot become established in the agricultural system of the community. Such value changes call for shifts in deep-rooted traditional behavior which cannot be carried out by external change agents without the use of community leaders. These must be leaders who are not too far ahead of their system; they must be able to exert general influence in order to be able to function well in a non-specialist society. Homans (1961, pp. 283-286) states that opinion leaders gain their influence by rendering "valuable and rare services" to the group. The implication is that they answer needs. Leadership and followership are based on rewards involved in rendering and receiving valuable and rare services, respectively. A person perceived by the members of his community as being competent in performing assigned tasks and providing directions in needed services, is generally in high demand for leadership. If he is demanded in more than one or several service areas, he becomes a "polymorphic" leader, the type best suited

for establishing general changes among many people. If he is at the same time favorably motivated toward new ideas, he can become a useful linkage system between the local system and the change agency. This is why further investigation about this type of leadership is considered important to a successful directed change program.

The desired end in working through leaders is to bring about improvements in the socio-economic system by:

1. Making the people perceive the need for and co-operate in creating new social systems.
2. Making the people perceive the need to alter the relative importance of certain elements and values of the social system.
3. Making the people perceive the need to alter the combinations of socio-economic elements and their relative importance with a view to achieving a pre-determined objective or set of objectives.

Perhaps the major task of the local leader lies in motivating the people to link their perceived needs with behavior to answer the needs. In short, the kind of leadership role called for in the inducement of change is a complex of human factors required for making relatively reluctant people approve, receive, and act out these new ideas in an integrated behavioral system.

This is a process that involves the same individual in both the stimulation, decision, and action processes. He needs knowledge and linkage with both the local and the extra-community systems, but even

more, he needs influence which functions at the emotional and sentimental levels in promoting leadership success. Gibb (1947, pp. 233-248) stated that "Leadership is not a quality which a man possesses; it is an interactional* function of the personality and the social situation."

Interpersonal influence involves a direct interaction between the influential person and the person influenced. Influence can be indirect, although in the peasant village the predominance of face-to-face communication generally renders the process a direct one. In this primary situation the use of local leaders calls for a detailed knowledge of the limits to efficiency that leaders may possess. Since leadership is a limited resource, much in the same way that land resources and capital are limited, there is need, in planned change, to seek the most efficient way of employing it.

The importance of a detailed knowledge of local leadership patterns is indicated in an analysis of case histories of change programs throughout the world. In an analysis of 203 such cases, Niehoff (1966, p. 8) found that in 177 (57.6 percent) cases the program outcomes were critically influenced by the attitude of local leaders toward the projects. However, change agents often find it difficult to locate leaders who will be acceptable and highly credible to a majority of the community. A beginning toward answering this problem

*Berlo (1960, pp. 133-167) gives a comprehensive view of the complex process known as interaction. In the leadership situation there is interaction between the leader and every group member and action-reaction between the group and the leader. The elements of interdependence in this process is discussed later in this chapter.

can be made by studying the forms of leadership, and then how these forms function. There already exists a large collection of literature on the nature of opinion leadership in rural communities (Rogers, July, 1967). However, a review of literature shows no studies on monomorphic and polymorphic leadership in developing countries. There may be differences in role performance between highly consistent leaders and low consistent leaders. The categories (Fig. I) may differ sufficiently to affect the kind of outcome when local leaders are used. While the concept of consistency is central to the present study and is explained with the dependent variable in the next section, the number of leadership roles combined by leaders is the second dependent variable also investigated.

The need for such study is expressed by Merton (1957, p. 415), who states: "Further inquiry into interpersonal influence must seek to identify the monomorphic and polymorphic influentials, locate these within the local social structure and establish the dynamics of change from one type to the other...Formal criteria such as education, income, participation in voluntary organizations, number of references to local newspaper and the like do not provide adequate indicators of those individuals who exert a significant measure of interpersonal influence. Systematic interviewing supplemented by direct observation are required." Educational level, socio-economic style of living and social participation among others are criteria used in studying largely because by observation they are found to be associated with most kinds of leadership roles in Nigeria.

The need for this study is two-fold. The information obtained can be useful to change agents in making proper initial contacts in the village. During the field work in the present study it was frequently noticed that the change agent inadvertently created wrong impressions by using certain persons as his channels of contact with the village. A more scientific approach to selecting such initiators and contacts can be gained through the study of leadership perception as undertaken in the present study. Besides, as Mouton and others (1955, p. 9) stated, "The data (sociometric mentions) can be employed for planning or rearranging a social situation or for installing some other administrative change." In Biafra* such situations may be Young Farmer's Clubs, agricultural community cooperatives, and rural development associations.

The second need is largely scientific in that sociometric responses may be used in the social psychological study of communities. Such studies could eventually result in the differentiation of communication channels at the interpersonal level similar to the kinds of differentiation found in the use of mass media channels. The analysis of polymorphism as undertaken in the present study gives further insights into the understanding of opinion leadership and community social structure. Such knowledge further improves the kinds

*Note that in the present thesis the names BIAFRA and EASTERN NIGERIA are used synonymously. The use of both terms arises from the fact that during the time of the Diffusion Project in Nigeria, there was a political revolution during which the Eastern Region, where the study was conducted, declared itself the Republic of Biafra. The situation still remains unsettled at the time of the writing of the present report.

of information that analysts and practical workers use in decision-making and in defining the organization of interpersonal communication among community people. A lack of understanding of interpersonal relationship on the part of visiting change agents usually starts conflicts within the community which he may never know about or be able to solve. Change projects may continue even under such circumstances, but definitely with difficulties and lowered efficiency. By the present approach it will not only be possible to identify leaders by number and area of leadership (a relatively simple job) but it will be possible to explain their relative characteristics in terms of consistency and other variables related to development.

THEORY

Conceptualization of Polymorphism of Opinion Leadership

Opinion leadership refers to the behavior of certain individuals who, through day-to-day personal contacts with other members of their community, influence the decision-making and opinion-formation processes of those with whom they communicate.* They are not necessarily the formal leaders of their community, but in general the formal positions they hold bear close relevance to their influence abilities, functions and opportunities. This is particularly so in rural communities of

*The present definition differs from that of Katz and Lazarsfeld (1955, p. 138) in that it is not limited as to scope or unit of contact in the influence process. It is different also from that of Merton (1964, p. 415) in the absence of limitation by size of following or number of situations. The emphasis here is on the purposeful behavior of individuals in changing the behavior and opinion of others. This agrees with the definition of opinion in terms of effect rather than in terms of quantity or the number of persons involved in the process.

Consistency of Sociometric Mentions		
	High	Low
Number of Roles	Mentions about equal in all roles	Mentions highly un- equal
	Number of roles high	Number of roles high
	Number of mentions	Number of mentions hi or lo*
	Mentions about equal in all roles	Mentions highly un- equal
	Number of roles very few or one with number of mentions hi or lo*	Number of roles very few or one with number of mentions hi or lo*

Figure 1. Two measures of Polymorphism and Their Relationship

*The sociometric number of mentions is not considered relevant to the present study. However the relationship of self-perceived opinion leadership with other concepts is used for further explaining the nature of opinion leadership in Eastern Nigeria.

developing nations. Constant interaction with other members of the community makes the leaders prominent in the perception of their peers. They come to be regarded as salient members of the community who may be approached for guidance in various areas of need according to their competence and interests. In other words, holding a formal position does not necessarily disqualify a person as an opinion leader; but rather exposes him to influence opportunities in informal situations which are sometimes difficult to differentiate from authority situations. This is why the situation is considered an important factor in opinion leadership analyses. "Situational cues affect the opinions a person expresses; they may also affect his resistance to counternorm communications." (Hovland, and others, 1953, p. 157)

The influence potential of communication sources varies with certain personal and social characteristics of the communicator, as well as that of the receiver. The perception of a person by the other members of a system is one of the major determinants of his acceptability as a force modifying other people's behavior. Besides the perception of others, self-notion is an important factor in the identification of opinion.

Power, Authority and Opinion Leadership

Power and authority, when found together, reinforce the effects of opinion leadership. While power may be considered a necessary element of opinion leadership, authority as an institutionalized status element is not usually associated with opinion leadership since authority is usually an element of formal status. Social power is defined as the ability of an individual or group of individuals to

control the attitude and behavior of others by force, command, persuasion, precept, example or the manipulation or mediation of appropriate status symbols (Kenney, 1956, p. 717). Authority is social power derived fundamentally from occupying a particular formal status, it involves the enforcement of established social values.

Power, as a dynamic force and a potential for influence, is generally applied in a concrete situation. When effectively exercised, it rests upon the conscious or unconscious acceptance of the source by those being influenced, as aspect of credibility which is not directly considered in this study. This is particularly so in the case of an informal influence process, which is largely a voluntary acceptance of the leadership performances and characteristics by the follower. Influence is persuasive while power is coercive; in most circumstances influence attaches to an idea, a doctrine, a creed and has its locus in the ideological sphere. Its most relevant application is in the area of voluntary action. Power attaches to a person, a group or an association and has its locus in the sociological sphere (Bierstedt, 1964, p. 145). These two concepts coverage in the idea of relating the perception of a leader by those he influences with his personal characteristics. Authority, on the other hand, is the potentiality to influence based on legitimized right to means end control, whereas power is the actual ability to influence or the actual means-end control. Where authority is differentiated from power we also have a divergence between formal and informal leadership. In both situations, particularly in the latter, submission is largely voluntary if the social system permits maximum individual freedom and choice. However, in the former case, the element

of choice is extremely limited and, very often absent. It is this kind of situation that often results in a rapid adoption of innovations. The operating factor in this influence process is authority. Where both formal and informal leadership tend to go together, polymorphic leadership emerges because the leader becomes influential on the basis of his perceived formal and informal abilities. In the diffusion process the relevant kind of leadership role is the informal whatever the context. Under such conditions, leadership overlap is common.

Overlap and Multiple Leadership Roles

Opinion leadership is a resultant of the factors of time, experience, interest, trustworthiness and situation. It is on the basis of these preconditions that Katz's (1958) criteria (personification of social values, competence, and strategic social location) emerge. Merton (1957, p. 419) pointed out that "position in class, power, and prestige hierarchies contribute to the potential for interpersonal influence, but do not determine the extent to which influence actually occurs." The following generalizations based on research (Rogers, 1962) apply to the notion of overlap and multiple role leadership:

1. Influentials are not found among institutional or informal leaders only.
2. Influence criteria differ from issue to issue and from community to community because no single or special set of factors are found to predispose people to be influentials in any or all fields. People can lead in several and differing issues in a number of communities.

3. Opinion leaders and innovators in agriculture are not necessarily different people.
4. In the k-choice*, sociometry statements cannot be made about social expansivity and social isolation in more than very relative terms.

Polymorphism of opinion leadership is defined as the degree to which a single leader is sought for information and advice about a variety of topics (such as agriculture, public affairs, family, business or health). Merton (1957, p. 414) stated that the variety of interpersonal influence spheres are sometimes seemingly unrelated. It is therefore the degree of social role specialization that defines the number of influence areas. He states that "monomorphic influence occurs only in certain spheres involving high specialization of skill and little public recognition", under which condition a monomorphic influential is only approached for advice on matters touching upon his special sphere of competence.

A limited number of studies have analyzed the polymorphism of opinion leadership. One of the major objectives of the present chapter is to reconcile the divergent ideas about overlap and multiple role leadership in the definition of polymorphism. Some researchers have

*In the pioneer sociometric study by Moreno, he instructed the subjects to give a specific number of choices. This is referred to as "K-choice" or "pick-K" method. In the present study the same approach was used with each role studied.

tended to emphasize the scope and area of influence covered, for instance, marketing, fashions and public affairs (Katz and Lazarsfeld, 1955). Others considered more inclusive and less sharply identified issues, for example, Silk's (1966) study of dental products and services, and as dentist, electric toothbrush, mouthwash, toothpaste, and regular toothbrush.

Polymorphism is the degree to which an individual combines leadership activities for different issues or types of roles.* Polymorphism is not concerned with the degree of influence in these roles. People who tend to be consistently influential in two or more areas of behavior tend to have a major leadership quality-flexibility which is important in the persuasive process of inducing change. These may be leaders who are required to make interpersonal communication more effective. This does not, however, say whether consistency is desirable or not; it depends on the situation.

There appears to exist some confusion in the conclusion of Katz and Lazarsfeld (1955, p. 334): "By and large, however, the hypotheses of a generalized leader receives little support in this study. There is no overlap in any of the pairs of activities. Each arena, it seems has a corps of leaders of its own." If generalized leadership means being a leader in all of social or other issues of life, it is true

*Merton defines polymorphic leadership as the exertion of influence in a variety of (sometimes seemingly unrelated) spheres. This definition seems to imply that the relationship of issues in polymorphic leadership is essential. The present definition does not see the need for the issues to be related. This idea has to be established through research before it can be accepted as a limitation on polymorphism of leadership.

that no such leaders (can) exist. If generalized leadership means combining two or more roles, then the second and third sentences of this conclusion contradict the first. The study actually found not only leaders who influenced two issues, but among these leaders there were different combinations. For instance, in that study subjects were found to exert influence in fashion and marketing, fashion and public affairs, marketing and public affairs and in all these areas. (1955, pp. 333-334). The concept of leadership overlap has therefore been somewhat misunderstood. It might be clarified by differentiating between overlap and multi-area leadership.

People sometimes play two or more different roles (to the same person). This is a multiple role relationship and can be studied if the same person is asked to name personal influentials in mentioned roles with the option of mentioning any one person any number of times. A multiple role relationship is one that exists between the same person in areas or issues which are defined as different by the persons concerned. On the other hand, people sometimes tend to play different roles to different followers. In this case there may be also multiple role relationship, but this can be distinguished as overlap because of the greater element of the combined effect of individual and situational structuring that affect role combination with the leader as the referent serving the same people in different roles. Multiple role relationships with the leader serving the same person in several roles "may be said to be characteristic of rural communities and total status situations while 'overlap' is characteristic of urban communities and

partial status situations. Both are polymorphism, generalized opinion leadership" (Frankenberg, 1966, p. 287). Overlap means that the same person serves as opinion leader in different combinations of roles to different people, e.g., marketing and movies to some followers, and marketing and politics to others. On the other hand, a person may be a three role generalized opinion leader for marketing, movies and politics to the same individual, or to different people.

Polymorphism consistency attempts to measure the tendency for leaders to exert the same level of influence in areas of social need. It does not measure the level of "popularity" by role, but rather the reliability of this popularity in terms of number of areas and consistency of influence. It also measures stability of leadership strength across all roles in which the leader serves. This notion of polymorphism consistency is similar to the notion of status consistency in sociology. So polymorphism consistency is the tendency for a leader to have followership in several differentiated areas at the same amount. This idea is implied in Merton's (1957, p. 414) statement that "it should not be assumed that individuals are monomorphic or polymorphic but rather that they operate as one type or the other according to the structure of the situation," as in Figure 2.

The situational analysis of leadership is linked with the notion of role differentiation. It also implies that a person in a leadership role in one situation may not be a leader in another situation. The role-situation approach is a total-situation* approach. It

*In an analysis of the application of the theories of social change to the urban and rural communities, Frankenberg (1966, p. 289) gives total status as characteristic of the rural environment. He defines

Perceived Roles of a Leader "X"

Peers

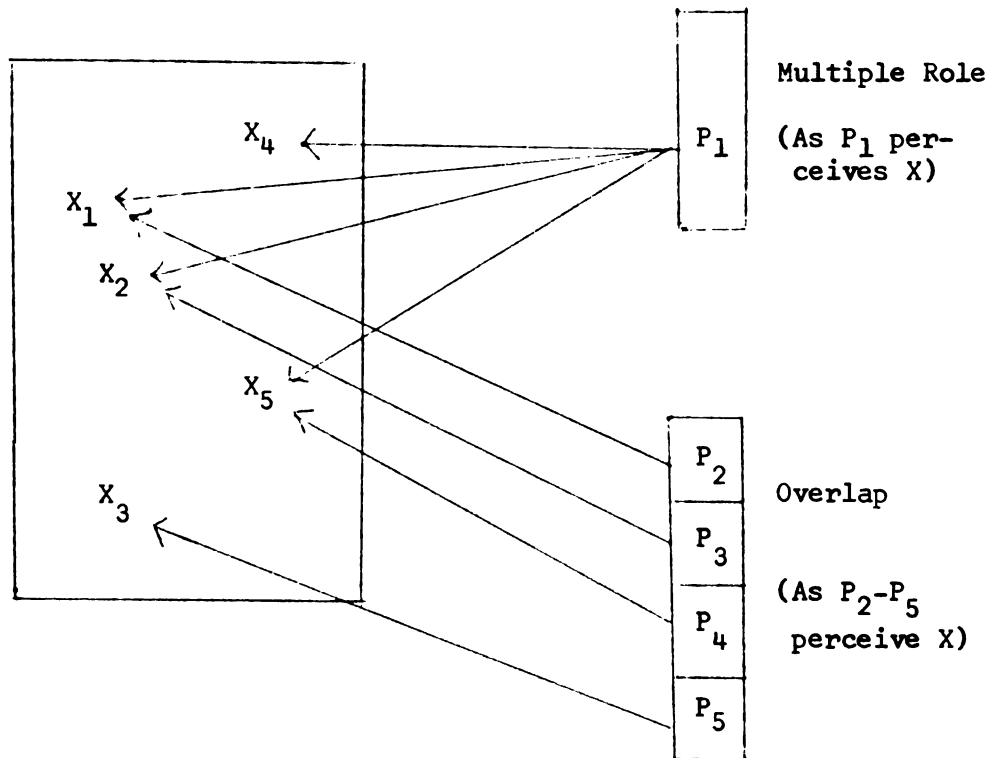


Figure 2. The Structure of Generalized Opinion Leadership*

*Polymorphism consistency takes into account factors of both overlap and multiple role.

P = Individual Persons influenced (influencees)

X_{1-5} = Leadership Roles exercised by one person: A leader's influence roles.

includes the perceptions of group members, the factors of custom and tradition, aspired goals, resources available for achieving goals, competence of the leader, as well as pressures from outside the system that influence the interactive behavior. Consistency measures the degree of permanence or continuity and change of the leadership behavior from one situation to another and from one role to another.

In terms of role-combinations, it has been found in all relevant studies that the number of leaders decreases rather sharply as the number of roles combined in leadership situations increases. This is a normal expectation as there is a point in the combination of roles beyond which the requirements of efficient services are too demanding for an individual to undertake. It might therefore be said that there is an element of selectivity and perhaps conscious limitation on the part of leaders as to the number of leadership roles they can occupy during a particular period. Perhaps there is a "saturation point" in polymorphic opinion leadership. At this point, returns to leadership efforts begin to decrease because the leader does not function at his highest efficiency in some or all of the roles. Merton (1957, p. 414) points out that the same individual may serve as a monomorphic leader for some persons and as a polymorphic leader for other persons. In the present study a leader who served as a monomorphic leader to all ten informants in his village could only have received ten mentions. If he was polymorphic to all, he could have received twenty mentions in only

this concept by saying, "In rural societies status spreads from situation to situation. A man's status is the same whatever activity he is engaged in." Consistency of polymorphism is measuring how level the spread is from situation to situation.

two roles, or thirty in only three or forty in only four and so on, depending upon the number of roles. Several leaders were therefore obviously polymorphic to some followers, and monomorphic to others. The concept of consistency serves to spell out the tendency in the leadership process to combine various roles and thereby be perceived differently by other members of the community.

Polymorphism has been adversely affected by the overstretched notion of efficiency inherent in specialization and the division of labor. While this notion applies to all situations where resources are limited as in cases of human resource use, it does not eliminate the presence of efficiency in limited non-specialization. Very little has so far been known about the kinds and number of roles a person can efficiently fill. To what extent can a single individual efficiently satisfy the expectations of his various roles and status that he comes to represent to various people. The notions of role-set and multiple roles combined in the concept of polymorphism need further exploration. The need for further investigation is given by the fact that in advancing societies the role-set of a family head cannot be adequately filled in the fact of the kind of social structure in which one lives. The husband-father-protector-need provider role that inevitably devolves on a family head is facing pressing demands from other quarters among which are professional obligations which must be retained if the family is to continue in a desired way.

Usually polymorphism is considered a negative characteristic of a traditional society; this is proper provided it is also remembered that it serves specific needs within the structure and that when it no longer exists or deteriorates, while the needs remain, further channels

have to be explored to satisfy the needs originally served by the polymorphic structure. This is how leadership may change with changes in the social system. These notions apply to the leadership roles and demands of developing and advanced societies whether it is in the family, friendship groups, the village association or the mechanized factory.

A clear understanding of the nature of polymorphism will provide guidance in the choice of role combinations by individuals, this will increase efficiency and reduce strains and the problems of extended specialization. Besides, the fact that a person is perceived as functioning in three or four roles does not mean that efficiency is equally high in all areas, a study of polymorphism may help in identifying the most efficient multiple-role an individual is capable of handling under specific conditions. Also certain individuals who are completely out of the leadership current may be put into useful social activities.

Objectives of the Present Study

The present study attempts to answer two questions. First, an attempt is made to see whether polymorphic leadership can be measured by means of the polymorphism consistency score as well as by number of leadership roles.* Secondly, polymorphism is examined to determine the extent to which it is related to modernizing behavior in a series of hypotheses which will be described in a later chapter. This later aim intends to find out how the notion that polymorphic leadership is

*"Number of leadership roles" is used as a measure of the degree of polymorphism; any number of roles therefore serves as a measure of degree in polymorphism continuum just as any number of sociometric mentions in any role qualifies a respondent as a leader and gives his degree of opinion leadership in that role.

characteristic of underdeveloped social structures is applicable to Eastern Nigeria. Finally, it is expected that the present thesis will contribute to the aims of the Diffusion Research Project, (Rogers, July 1965). One of these aims is to contribute to the improvement of methods for studying the diffusion and adoption of innovations in the future.

CHAPTER II

STUDIES IN POLYMORPHISM

The present chapter is a review of theories and research studies of opinion leadership and polymorphism as far as both are related to the present study. One set of studies concentrates on identifying variables correlated with opinion leadership. Polymorphism studies are mainly concerned with the incidence of leadership forms in various social systems. Three studies of this type are reviewed in the present chapter. One review is a re-analysis of a pioneering study on the subject.

In 1940 a study was completed on the behavior of people in the decision-making process during a United States Presidential election campaign. The findings of the Erie County, Ohio study (Lazarsfeld and others, 1948, p. 151) brought the attention of communication researchers to the importance of interpersonal influence.

Studies of the Socio-Psychological Factors of Influence

A review of diffusion studies indicates that opinion leaders tend to have some common characteristics. Table 1 summarizes findings on the socio-psychological characteristics of opinion leaders in studies conducted between 1940 and 1965 in various parts of the world including the United States, India, Southeast Asia and Latin America. The concepts selected are only those that have relevance to the present study.

Most opinion leaders tend to be innovative, cosmopolite, exposed to mass media, formal organization leaders and holders of higher social status. Most of the studies done on opinion leadership were in the

acceptance of new ideas, especially in agriculture. On the other hand there has been a kind of controversy as to the existence of differences in the forms of opinion leadership.

Colombia University Studies in the United States

Following the discovery of opinion leadership in 1940 (Lazarsfeld and others), Katz and Lazarsfeld in 1945 undertook another study. The aim of that study, conducted in Decatur, Illinois, was to investigate further the importance of interpersonal influence in the communication process. A part of the study concerned overlap of leadership roles.

The Decatur study investigated the flow of influence in four areas: marketing, fashion, public affairs and movie-going. The respondents were women. The high concentration of movie-going among girls and the fact that it covered a rather small sample precluded its inclusion in the analysis of leadership overlap. The data on multiple-area leadership thus deals with three areas as shown in Tables 2 and 3. About 41 percent of the respondents were opinion leaders. Of those who were leaders 25.2 percent were leaders in two areas, 7.6 percent were leaders in three areas while the rest were single-area leaders. Together 32.8 percent of the leader group were multiple area leaders and this constituted 13.4 percent of the total sample studied. Katz and Lazarsfeld (1955, p. 334) concluded:

By and large, however, the hypothesis of a generalized leader receives little support in this study. There is no overlap in any of the pairs of activities. Each area, it seems has a corpus of leaders of its own.

This conclusion was based on the assumption that the hypothesis of a

Table 1. Social and Personality Factors Related to Opinion Leadership ***

Characteristics of Opinion Leaders	Number of Studies by Type of Relationship			Positive Relationship Percent
	Negative	No Relation	Conditional	
1. Age	3	4	1	11.11
2. Family Size	-	1	-	50.00
3. Education	-	3	-	55.56
4. Social Status	1	1	-	66.67
5. Level of living	-	-	-	100.00**
6. Innovativeness	3	11	4	71.43
7. Knowledgeability	-	3	-	50.00
8. Cosmopoliteness	-	1	-	85.71**
9. Mass Media Exposure	-	2	3	55.33*
10. Group Participation	1	1	-	66.67**
11. Formal Organizational Membership	-	-	1	66.67**
12. Formal Organizational Leadership	-	-	3	100.00**
Total	7	27	9	82
Percentages	5.6	21.5	7.3	65.6

***Source: Diffusion Documents Centre, Department of Communication, Michigan State University, East Lansing, 1966. This summary is compiled from 79 studies conducted by 53 individual researchers, some whom made more than one study.

*Variables that are not clearly relevant

**Strongly relevant variables. Based on percent of investigations with respect to the variables that had a positive relationship with Opinion Leadership.

TABLE 2 - Distribution in the Total Sample of Multiple,
Single and "Non-Leaders:" The Columbia University Study

Number and Names of Areas of Leadership		Percent	Total Percent	
0	Non-Leaders	59.2	59.2	
1	Fashion	12.0		
	Marketing	12.4		
	Public Affairs	3.0		
			27.4	
2	Fashion and Marketing	5.1		
	Fashion and Public Affairs	2.4		
	Marketing and Public Affairs	2.8		
			10.3	
3	Three Areas Combined	3.1	3.1	
	Total	100.00	100.00	N=704

Source: Katz and Lazarsfeld (1955, pp. 333-334).

general type leader required certain characteristic traits or attributes, that is, it is based on the denial of the trait approach in leadership analysis which is not relevant here. They also assumed that in any group and in any situation those who embodied these leadership traits to the greatest extent would emerge as leaders. These assumptions emphasize an all-or-nothing approach. They do not take into consideration circumstantial and counterbalancing factors like competition for leadership, competence, interests, selection and preferences.

A Re-analysis of the Decatur Study by Marcus and Bauer

Perhaps because of the conclusion made by Katz and Lazarsfeld, practically no attention has been given to the study of multiple-area opinion leadership. However, Marcus and Bauer (1964), using data from the Katz and Lazarsfeld study, concluded that there are generalized opinion leaders. The study found that 23.4 percent of the leadership activities were in marketing, 22.6 percent in fashion and 11.3 percent in public affairs. These proportions did not include the combination of roles, but only the incidence of leadership in each role. For three combination of two roles each, there were 2.4 percent, 5.1 percent and 2.8 percent; which added to 10.3 percent for all cases of leadership combination of two roles. For all the three roles combined, 3.1 percent were leaders. Marcus and Bauer (1964) used a more reliable method to calculate the expected probabilities of the occurrence of the various combinations of roles. They took into consideration not only the probability of being a leader in two areas but also that of not being a

leader in the third area when two only were considered. This is relevant because it is not reasonable to assume independence of role activities by the same individual. The data and recalculations are shown in Table 3.

In each case of the recalculation the actual frequency was greater than chance expectations. Where the three-role combination was concerned, the original study found that the number of persons who actually were functioning was significantly different from the number expected on the assumption of independence. The frequency (3.1 percent) was five times greater than expected. The recalculation of the two-area leadership obtained by adding the three-area frequency, shows that the two-area opinion leadership was significantly greater than expected under conditions of combined area-leadership independence. This would include in all cases those who led in two or more areas. Therefore the data support the presence of generalized opinion leadership beyond mere chance.

Los Angeles Study of Overlap in Dental Products and Services

Silk (1966) reports a study of 177 residents of West Los Angeles. Opinion leadership was measured by self-designation. Although Silk found that over 18 percent of his sample were opinion leaders in two or more areas, he concluded that "these data for dental products and services gave no clear indication that the degree of overlap of opinion leadership was greater than that expected if opinion leadership in one area was entirely independent of that in another." In a sample of 177, 134 cases of self-designated leadership were found and these were occupied by 93 individuals. This means that about half the leadership

functions were performed by persons who led in at least two areas. The data are given in Tables 4 and 5. The problem with Silk's study is that his definitions of leadership areas could have been too narrow and therefore far removed from the reality of the influence situation.

Chicago Study of Family Planning

In this study of family planning those who received advice from opinion leaders were asked to indicate other areas in which they sought advice. The various areas are indicated in Tabel 6.

Padmore (in Bogue) (1967) found that family planning opinion leaders were only a little more likely to be consulted on non-family planning matters than were non-leaders. Few of the differences between the opinion leaders and non-leaders were statistically significant. In other words, there were no significant findings showing the existence of generalized opinion leadership. Both the opinion leaders and the "knowledgeable apprizers" were by definition opinion leaders, although for the purposes of the study only a specific group was designated as such. All of them were involved in giving information that influenced behavior in the same areas. The data indicate that in at least one third of the cases the "opinion leaders gave information in two areas other than family planning." Although it is not possible to know how many people did this, it is clear that some were opinion leaders in three areas. The case appears much more pronounced among the "knowledgeable apprizers."

Conclusion and General Hypotheses

There is still no agreement as to the existence of generalized opinion leadership; however all relevant studies have located and given data on multiple-area opinion leaders. This points to the fact that

TABLE 3 - Comparison of Hypothetical Frequency Calculations with Actual Frequencies of Overlap in Leadership as Expected from Chance Alone: The Columbia University Study

Areas of Leadership	Hypothetical Frequency (Katz & Lazarsfeld; Marcus & Bauer)	Actual (Katz & Lazarsfeld)	Overall Modified (Marcus & Bauer)*
1. Leaders in Three Areas	0.234x0.226x0.113= 0.006	0.031	0.31
2. Fashion and Public Affairs	0.226x0.113= 0.026	0.026x(1-0.234)= 0.020	0.055
3. Fashion and Marketing	0.226x0.234= 0.053	0.053x(1-0.113)= 0.047	0.082
4. Marketing and Public Affairs	0.234x0.113= 0.027	0.027x(1-0.226)= 0.020	0.059

Sources: Katz and Lazarsfeld (1955, pp. 333-334)
Marcus and Bauer (1964)

* Computed by adding the three-area actual score to each of the two area scores to obtain the overall probability of multiple-role combination at each of the paired role levels.

TABLE 4 - Distribution of Self-designated
Opinion Leaders by Product

Product or Service	Number of Opinion Leaders	Percent of Total Sample
1. Dentist	62	35.0
2. Electric Toothbrush	28	15.8
3. Mouthwash	18	10.0
4. Toothpaste	14	7.9
5. Regular Toothbrush	12	6.8
Total	134	65.5

Source: Silk, (1964, p.257).

TABLE 5 - Distribution in Total Sample of Self-designated Opinion Leaders by Number of Areas of Influence: The Los Angeles Study*

Number of Areas of Influence		Number of Opinion Leaders	Percent of Total Sample	
1.	0 (non-leaders)	84	47.5	
2.	1	61	34.5	
3.	2	25	14.0	} 18.1
4.	3	6	3.4	
5.	4	0	----	
6.	5	<u>1</u>	<u>0.6</u>	
Total		177	100.0	

* Source: Silk, (1964, p.257)

TABLE 6 - Percent of Postcard Recipients who Asked Opinions
on Topics Other Than Family Planning*

Recipient Asked Advice About the Following in Addition to Family Planning	Postcard Donor Is		
	Opinion Leader	Knowledgeable Apprizer	Other
1. Health Problems, Medical Problems	19.2	27.8	20.0
2. Money Problems	15.4	22.2	20.0
3. Problems of feeding and taking care of babies	23.1	27.8	10.0
4. Problems of getting children to behave	11.5	27.8	10.0
6. Matters of voting and Politics	7.7	11.1	10.0
7. Matters of religion, morals	7.7	11.1	10.0
8. Matters of hair style, what clothes to wear, cosmetics	26.9	27.8	10.0
9. Marriage problems, how to get along with husbands or boy friend if there are troubles	19.2	27.8	10.0
11. To have better sex relations	7.2	27.8	0.0
Total number in each role	26	18	10

*Source: Padmore, (1965, p.349).

multiple-area opinion leadership is a social fact, that it is a rare phenomenon by nature and may follow the generally assumed normalacy of distribution in the population. It may also mean that the degree of occurrence in the population is highly limited since several decision-making factors are involved in the leadership process. Among these are the situation, time, individual interest, competence, the issue, purpose of leadership, definition of roles and social perception. Besides, the nature of the phenomenon may be such that one is both a monomorphic leader as well as a polymorphic leader depending upon what persons are being influenced or are concerned. This is why the concept of consistency may be useful in explaining the phenomenon because it is computed by including all possible roles in which the leader received mentions as well as those in which he was not mentioned.

On the other hand all studies have tended to use a wrong population base in their analyses and interpretations of polymorphism. Polymorphism is a higher level conceptualization than opinion leadership (see Figure 3). While opinion leadership is a phenomenon of the general population, polymorphism is a subject of opinion leadership. In other words, only people who have become leaders can be expected to be multiple-area leaders. If we use the population of leaders in calculating the frequencies of the role combinations of leadership, the results of the studies would be different. This is given in Table 7. This study then is based on the assumption that there is multiple opinion leadership. For instance we notice that there is a general tendency

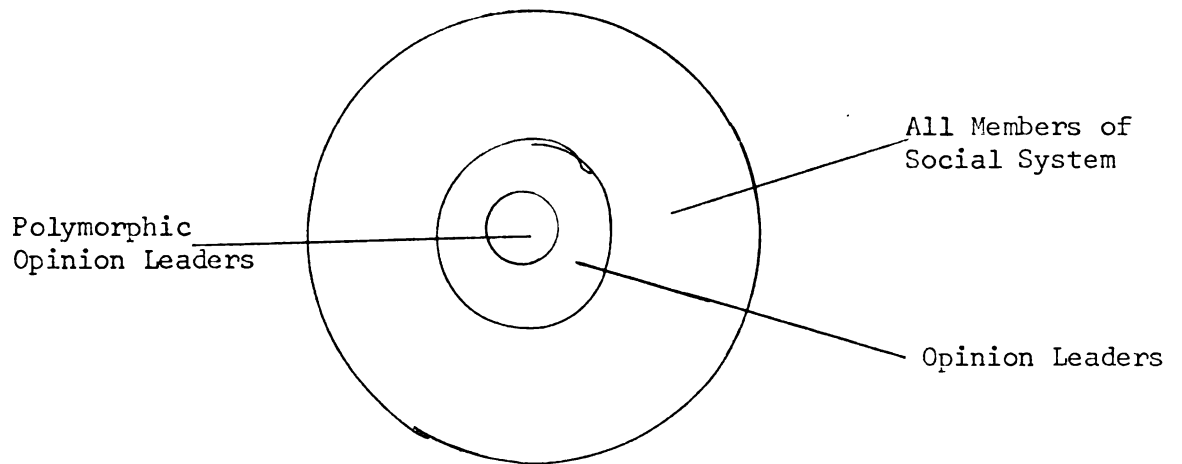


Figure 3 - Set Definition of Polymorphic Leaders as a Subset of Opinion Leaders

TABLE 7 - Distribution of Leaders in Three Studies by
Number of Roles Combined in Leadership Functions

Author or Source	Place of Study and Total Sample Size	Percent Leaders and Number of Non-Leaders	Percent of Leaders by Number of Roles						Total Leaders
			1	2	3	4	5	6	
1. Katz and Lazarsfeld (1955)	Decatur (704)	59.0 (415)	67.6 (192)	25.8 (73)	7.6 (22)	-----	-----	-----	100.00% (289)
2. Silk (1966)	Los Angeles (177)	47.2 (84)	64.5 (61)	26.9 (25)	6.4 (6)	-----	1.1 (1)	-----	100.00% (93)
3. Present Study*	(1) Biafra(Eastern Nigeria) 947(Self-designated opinion leadership data)	37.5 (357)	63.2 (436)	26.2 (180)	10.6 (7.3)	-----	0.1 (1)	-----	100.00% (690)
	(2) 834 (Sociometric Leaders)	0 (834)	36.6 (305)	28.9 (244)	19.1 (159)	11.4 (95)	3.2 (27)	0.4 (7)	100.00% (834)

* The two forms of leadership data in the present study give different sample sizes for leaders. There are fewer (690) self-designated leaders based on actual positions held in organizations and more (834) sociometric leaders. This is as expected since sociometric leadership is based on leadership influence (with or without formal village position) as perceived by peers

In the self designation method data were obtained by asking the leader whether he held any formal position in the village.

for leadership combinations to be about the same in the three studies reviewed. A little over 60 percent in all cases are single-role leaders, about 25 percent of the leaders are double-role leaders and a little less than 10 percent (about 8 percent) are triple-area leaders. In all three sets of data no four-role nor five-role leaders were located by the sociometric method. The sociometric data of the Diffusion Study are different from the self-designation data and show mentions of up to six roles combined by seven leaders.

General Hypotheses

The concept of polymorphism consistency is based on the idea that consistency itself is an index of reliability. If a person has a tendency to be homogeneous in his influence actions across a number of social roles, the margin of leadership inefficiency in a total situation is relatively lower than that of a highly specialized leader who tries to function in a general leadership situation. If a consistent leader also has favorable attitudes toward innovations, however, he can be an effective catalyst in his community for development. In the present study two dependent variables are used to index polymorphism; these are polymorphism consistency and number of leadership roles occupied by each leader.

The attainment of leadership positions in a Nigerian village is partly a function of life cycle in that a person must be old enough to be regarded as a source of reliable information and direction. Age, marital status and responsibility in terms of the number of children

are important life cycle factors. "Old enough" means that life cycle factors are considered by the system in determining the level of maturity approved for leadership. The following are the general hypothesis which will be empirically tested later. The same hypotheses are generated in respect of number of leadership roles combined by leaders. This is the second dependent variable.

General Hypothesis 1-1. There is a positive relationship between polymorphism consistency of opinion leadership and the life cycle of the leader.

General Hypothesis 1-2. There is a positive relationship between the number of leadership roles in which the Eastern Nigerian leaders receive Sociometric mentions and their life cycle scores.

This hypothesis means that the more consistently polymorphic people are also the older people with large families. In other words the older, more stable and experienced a person is, the more positions will be available to him in the leadership system. Age and a large family are strongly associated with esteem in the rural communities of Eastern Nigeria. Many people with varying problems look to the local aged for guidance in their day to day living.

Education is measured by the number of years of formal education completed. It is expected that the relatively better-educated leaders tend to be less localite than the other leaders. They therefore hold fewer village positions and have a relatively lower tendency than

others to hold many village positions.

General Hypothesis 2-1. There is a negative relationship between polymorphism consistency of opinion leadership and the educational level of the leader.

General Hypothesis 2-2. There is a negative relationship between the number of roles in which leaders receive sociometric mentions and the educational level of the leaders.

This may mean that the more educated person (if he is a leader) will be less polymorphic than the less educated leader. Such a leader is more specialized and therefore less inconsistent as a leader across all the roles considered in this study but more consistent as a leader in a few roles. Formal education also tends to alienate the more highly educated who becomes less attached to the community. He is then perceived as being competent in those areas of life in which he shows greater specialization, because of this he is high sociometrically in such areas and low in others. The less educated individual is mostly judged as a leader by the community members largely on the basis of perceived general ability. He therefore has about the same sociometric score across roles; this gives a high polymorphism consistency score.

Socio-economic style of living is the level of living acquired or inherited in the community as indicated by the amount of wealth and the level of living of the leader. The relatively higher status of leaders

makes them relatively less integrated with the rest of the community. Such leaders may hold few formal positions but tend to be sought for advice in several informal roles especially because of their wealth.

General Hypothesis 3-1. There is a positive relationship between polymorphism consistency of opinion leadership and socio-economic style of living.

General Hypothesis 3-2. There is a positive relationship between the number of roles in which a leader received sociometric mentions and the socio-economic style of living of the leaders.

Wealth is an important factor in the ascription of status in the Eastern Nigerian community. Besides positions and followership resulting from ascription, wealth is the major factor in regard to influence. People tend to be attracted to the successful in order to benefit from them. In this way there is a general tendency for people with various problems to look up to those who have successfully overcome life problems, the major one of which are problems of living: food, shelter and other desirable things of modern life. Those who are poor are already failures and so cannot be expected to give productive advice to others. In this study they the relatively more modern who have been able to acquire the modern style of living measured in this variable. So the high socio-economic status removes him from the general leadership situations but places him in a more modern situation. Such a leader tends to be more inconsistent than the more strongly local-oriented leader.

Innovativeness is the degree to which an individual is relatively earliest in adopting new ideas than other members of his social system (Rogers, 1962, p. 19). In the present study the concept of time is limited by the relatively short period that the program of innovations existed in the community; so innovativeness is the actual participation in one or more of the recent agricultural development programs either on an individual basis, on a community basis, or both. Leaders tend to conform to norms more than the ordinary members of the community. Because of this they are rather slower in accepting innovations which would mean deviation from local norms and a possible loss of influence. Leaders who are integrated into the community and who hold many influence functions tend to be less innovative.

A program of agricultural development usually consists of a series of innovations which are defined as ideas or physical objects perceived as new by the members of a social system. Innovations differ in terms of certain characteristics among which are: their relative advantage; compatibility with the social system, needs of the people and available resources associated with them; complexity of application; communicability and diversibility.* A program of innovations consists of differing projects administered separately under specific organizational

*For a full explanation of the characteristics of innovations, see Rogers (1962, pp. 124-134).

approaches under the central administration by a government. An agricultural development program therefore consists of administrative systems aiming at the diffusion and adoption of agricultural innovations. The innovations in the program investigated in the present study consisted of the following:

1. The Tree Crop Programs
 - a) The Oil Palm Rehabilitation Program
 - b) The Cocoa Rehabilitation Program
 - c) The Rubber Rehabilitation Program
 - d) The Cashew Program
 - e) Community Plantation Program
 - f) Farm Settlement Program
2. The Food Crop Programs
 - a) Cassava Program
 - b) Rice Program
 - c) NS-1 Maize Program
 - d) Vegetable Growing
3. Other Programs
 - a) Aldrine Dust
 - b) Fertilizers Program
 - c) Poultry (improved)
 - d) Livestock (improved)
 - e) Stork Oil Press

General Hypothesis 4-1. There is a negative relationship between polymorphism consistency of opinion

leadership and agricultural innovativeness.

General Hypothesis 4-2. There is a negative relationship between the number of roles in which leaders receive sociometric mentions and their agricultural innovativeness.

Agricultural innovativeness requires not only a change in behavior but a change in attitude. Attitude change is possible among those who are not too strongly committed to the local community system and norms. A general tendency to leadership involves strong adherence to the local normative system. Innovators are less attached to the local system than general leaders and being more modern-oriented, tend to be more specialized and therefore more inconsistent as polymorphic influentials.

Economic rationality is the degree to which a leader behaves in order to maximize the benefits to himself of his resources such as work, money and land. Since polymorphism is characteristic of the more traditional leaders, Westernized rational behavior in economic activities is characteristic of modernizing behavior, we expect a negative relationship. In other words the two concepts do not vary. This is not to say that rationality is an exclusive feature of modernized people for, as Malinowski (1948) pointed out, the most primitive people are characterized by rationality, although it may not be highly developed among them.

General Hypothesis 5-1. There is a negative relationship between polymorphism consistency of opinion leadership and economic rationality.

General Hypothesis 5-2. There is a negative relationship between the number of roles in which leaders are mentioned and their economic rationality.

The Western form of modern economic rationality requires the efficient use of resources (money, land and labor) for largely private productive purposes. The developing rural economy in Eastern Nigeria is still largely devoted to consumption. The purposeful development of resource use is a new idea and leaders who accept this approach have become less traditional, more personally concerned and more specialized along with other characteristics of modernity. Such leaders are less consistent as polymorphic leaders than those who still follow the traditional methods of labor and land use.

Agricultural knowledgeability is the extent to which an individual gives correct information about the various programs of agricultural development. Perhaps the basic reason for selecting a person as an opinion leader is the fact that he has information on the subject others seek to know. In the case of agricultural knowledge every adult supposedly knows enough about traditional agriculture. However, those who have knowledge of the new agricultural programs are less likely to be the traditional polymorphic leaders but rather be innovators. So polymorphism tends to decrease as agricultural knowledge increases.

General Hypothesis 6-1. There is a negative relationship between polymorphism consistency of opinion leadership and knowledgeability about agricultural innovations.

General Hypothesis 6-2. There is a negative relationship between the number of leadership roles in which leaders are mentioned and their knowledge about agricultural innovations.

Among the leaders there is a high level of common knowledge about the local agricultural system. Knowledge of new agricultural technology and practices is relatively low. Those who have this knowledge are the less traditional who actively want to go into the more modern and more productive agriculture. They therefore exhibit a less stable relationship with the local social system so that their higher knowledge level is associated with a lower level of polymorphism consistency.

Opinionatedness* is defined as the willingness of a person to express opinions on impersonal matters as well as the ability to give answers to opinion questions. Ability to give opinions is one of the observable characteristics of effective leaders. The leader in the local community is expected by his followers to have dependable opinions on the subject about which he is sought for information. It appears that if one fails to satisfy this need one soon falls out of the group of leaders. However, just the ability to ~~express~~ an opinion in a definite direction was measured in this study.

General Hypothesis 7-1. There is a positive relationship between polymorphism consistency of opinion leadership and opinionatedness.

*Both the ability to give one's opinions or answers to questions about local needs and problems and the ability to give answers to statements of opinion on impersonal matters are comparable measures of opinionatedness. However, only items in the latter operation were used in indexing opinionatedness.

General Hypothesis 7-2. There is a positive relationship between the number of roles in which leaders are mentioned and their opinionatedness.

Knowledge about the local social system is high among leaders who are more deeply involved in local affairs than those who are not. They tend to be more able to express opinions about the local belief and attitude system than those who are less generally attached to the local system. Those who have been expressing their opinions find it easier to choose between alternative ideas and to talk about the needs and problems of the community. Lerner (1958, p. 71) expresses the relationship of opinionatedness with participation and modernization by saying that opinionatedness increases together with modernizing behavior in society.

Lerner (1958, p. 26) reports the following about the Chief of Balgat. Naturally the Balgati whose advice was most sought was the chief who reported: "Yes, that is my duty, to give advice. (Interviewer: What about?) About all that I or you could imagine, even about their wives and how to handle them, and how to cure the sick cow."

Cosmopoliteness is the degree of orientation to external social systems that a person has. It is measured as the degree to which an opinion leader makes contacts with and travels to places outside his immediate community. In the Iowa hybrid corn study by Ryan and Gross (1943), this variable was first empirically studied in relation to the adoption of an agricultural innovation. Similarly, opinion leaders gain information and experience through contacts with outside social

systems. The exposure one has to external systems has the effect of orienting one's behavior beyond the familiar locale and therefore reduces linkage with the more conservative society.

Thus (Lerner, 1958, p. 26) "rather...surprising was the interviewer's discovery that some Balgati went for advice also to the disreputable (innovative) grocer. What did they ask his advice about? 'What to do when they go to Ankara, where to go and what to buy, how much to sell their things.'" This passage points up the existence of polymorphic leadership functions both for the localite and the cosmopolite. It also shows how need satisfaction rather than reputation functions to a person sought for advice.

General Hypothesis 8-1. There is a negative relationship between
polymorphism consistency of opinion
leadership and cosmopoliteness.

General Hypothesis 8-2. There is a negative relationship between
number of leadership roles in which
leaders receive mentions and cosmopoliteness.

Exposure to external social values reduces the leader's intimacy with the local people. Those who seek advice are likely to be similar to him. This reduces his chances of being consistently associated with local patterns of life, thus becoming as relatively inconsistent as a leader across all the roles considered in this study.

Mass media consumption* is the extent to which an opinion leader

Mass media consumption is the preferred term in this present thesis in order to make a distinction between the information saturated societies and those deficient in information availability. In the former

obtains his information from mass media channels of communication. In a developing nation the common media are newspapers, government agricultural bulletins, and radio. The level of mass media has been found by Lerner (1958, p. 55) and several other investigators as a major indicator of modernity.

General Hypothesis 9-1. There is a negative relationship between polymorphism consistency of opinion leadership and mass media consumption.

General Hypothesis 9-2. There is a negative relationship between the number of leadership roles in which leaders are mentioned and mass media consumption.

Mass media consumption has been shown in several studies to be strongly related to modernizing behavior. Polymorphism, on the other hand, is characteristic of traditional behavior in general. The level of mass media consumption increases with the acquisition of new forms of behavior and a weakening local attachment. Consistent attachment to the local system is therefore not associated with high mass media attachment. The more limited interest of the highly exposed leader results in a high polymorphism inconsistency.

Group participation is the degree of active involvement in formal

the characteristic situation is that a person always has information media available in relatively easy accessibility and behavior is fundamentally selective. In the latter a great deal of relative effort and resources are needed to gain contact with existing information sources, it involves expenses that cut significantly into other consumption expenses. Otherwise both terms have no difference.

organizations in the community. This may take the form of ordinary membership or the intensity of involvement shown by offices held in various village formal organizations. The greater frequency of contact with the members of the community is a means of either creating influence opportunities or of strengthening already existing influence relations. Leaders have been found to conform highly to a group norm and therefore less likely to change as fast as other community members.

General Hypothesis 10-1. There is a positive relationship between polymorphism consistency of opinion leadership and formal group participation.

Group Hypothesis 10-2. There is a positive relationship between number of leadership roles and formal group participation.

Social participation is an indication of conformity and the more highly a person conforms, the more generally he is accepted as a leader.

Merton (1957, p. 400) argues that localities have a greater heterogeneity of interpersonal communication within the community than cosmopolites.

They therefore are relatively more consistently referred to for leadership assistance than those to communicate less.

The general prediction of these hypotheses is based on the assumption that polymorphism of opinion leadership is characteristic of traditionalism. Some of the variables are indicative of traditionalism and are expected to correlate positively with high polymorphism while others are modernizing and will have a negative relationship with polymorphism. For instance, group participation is an indication of a strong attachment to the local social-cultural system; it has a positive relationship with polymorphism

consistency. Expression of opinion about the village and beliefs may not distinguish leaders since this would be common knowledge. This study is interested in finding the kind of relation between polymorphism consistency and opinionatedness.

CHAPTER III

METHODOLOGY

SAMPLING PROCEDURE

The present study was carried out in Eastern Nigeria as part of the three-nation study of the Diffusion of Innovations in Rural Societies, sponsored by the United States Agency for International Development.*

*

The Diffusion Project focused on three kinds of objectives, as follows:

1. To identify village innovators and opinion leaders, and determine their distinctive social and economic characteristics, communication behavior, attitudes and values to provide change agents with information useful for more efficient work.
2. To identify the role and influence of various communication channels and techniques such as mass media, opinion leaders, interpersonal communication and demonstrations in the innovation process.
3. To introduce various communication and economic incentives (such as credit) through various communication channels (radio forums) to determine the response to these incentives.
4. To identify the influence of presently-existing price incentives, credit, land tenure, marketing practices, the shift from subsistence to commercial production, and other economic factors on the adoption of new ideas.

The second kind of objective concerned the development of improved research methods for the study of the diffusion and adoption of innovations in traditional societies.

Thirdly, the study aimed at providing training to personnel from the Host-County in social science research and analysis of research data, as well as develop instructional structures for diffusion-adoption research and action programs. (Roger, 1965, pp. 4-5)

Two major cultural areas were selected for the study in Eastern Nigeria, the Ibo and Ibibio areas.

Table 8. Distribution of Sample Areas by Sub-Linguistic Groups.

Provincial Group	Number of Divisions	Number of Countries	Number of Villages
1. Abakaliki	2	3	7
2. Onitsha	5	8	18
3. Owerri-Port Harcourt	4	9	20
4. Umuahia	2	3	7
5. Annang	2	3	8
6. Uyo	<u>4</u>	<u>5</u>	<u>11</u>
Totals	19	31	71

Six major cultural areas as given in Table 8 were selected on the basis of population, participation in the agricultural production of the area and accessibility by land transportation. The number of villages studied in each province was proportionately assigned on the basis of the 1963 Census, but the distribution of the villages within the provinces was based on the 1953 Census because the 1963 Divisional Census figures were not available at the time of sampling. The counties were selected by a simple random sampling method. The actual communities were selected on the basis of several factors.

1. The structure of the community
2. Information received from the divisional and county agricultural officers concerning the participation of the

villagers in the agricultural development program. Two villages were selected from each sampled county on the basis of information received from the divisional agricultural office. One of the villages was considered a "success" village since new agricultural programs were highly adopted, and the other a "failure" village because no program had adopted at the time of the selection.

3. Village was defined as the smallest combination of extended families that had a name and was generally recognized by the village people as a community.
4. The most innovative part of the community too large to be considered as a single unit was selected for study if that community as a whole was considered agriculturally progressive. The least progressive part of a non-innovative or laggard community was correspondingly selected for study as representative of the failure village.
5. The only units in the study randomly selected were the counties from which two villages were selected for study.

Definition of Leadership Roles

In the selection of respondents for the present study attention was focused on leaders and agricultural innovators. Eight categories of leadership (Table 9) were identified on the basis of the most commonly-equivalent institutions. The following are the roles considered in the present study. Institutional roles were, as far as possible, categorized as modern or traditional, and leaders were mentioned in each role on the

Table 9. Distribution of Leaders by Role*

Leadership Role Name	Number of Leaders	Percent of Leadership Mentions in Role
1. Traditional Leaders: Administrative	192	20.8
2. Modern Leaders: Administrative	220	23.9
3. Educational Leaders	163	17.7
4. Traditional Leaders: Religious	115	12.5
5. Modern Leaders Religious	164	17.8
6. Civic Leaders	291	31.6
7. Village Farming Leader	312	33.8
8. Village Affairs Leader	365	39.6

* The number of leaders and the percent of leadership mentions by type of area of leadership do not sum to the sample size and 100 percent respectively because of the incidence of polymorphism.

basis of this categorization. Although one person could not have been reasonably mentioned in both modern and traditional roles under the same function, anyone could have been mentioned in any or all of the eight roles.

1. Traditional Administrative Leaders are those village chiefs, elders, lineage heads, and other persons in the village who are formally known to function in the administrative role for the whole village or parts of the population of the village.

2. Modern Administrative Leaders were persons appointed as village representatives in the Local Government governing bodies, particularly as local Council members, County Council members, Provincial Assemblymen or Village tax Collectors assigned by the County Council. This role is considered modern because the institution started during the past decade just before National Independence and is an innovation in local government.

3. Education Leaders are all those who are directly involved in the running of formal educational institutions within the village or in cooperation with neighboring communities. These include heads of local schools and native-born teachers, members of School committees and other persons engaged in organizing formal education in the village.

4. Traditional religious leaders are persons who carry on the indigenous religious practices, officiate in the village religious rites, keep shrines, perform healing by the traditional method or by such syncretic methods as spiritualism and local cults.

5. Modern Religious leaders are officers, elders, preachers, pastors, ministers, evangelists, missionaries of the organized churches. Organized Churches include Western Christian Churches or other non-

Christian formal Churches.

6. Civic Leaders are the formal heads of village modernizing associations, clubs, youth leagues, Unions, cooperative societies or other special purpose organizations aiming at introducing change and improvements into the village.

7. Village Affairs Leaders are influential persons in the village who may not hold formal positions in organizations within the village.

8. Village Farming Leaders are those who are influential in agriculture in the community. Even though they are not innovators these are persons who show active interest in agricultural improvements or are highly successful in their farming activities.

SELECTION OF RESPONDENTS

Selection of respondents was done by trained interviewers using a leader selection form. The final selection of respondents was supervised and approved by the supervisory staff. The method of selection was sociometric, and anyone who had at least four mentions was selected, provided there were not other persons within the particular leadership role who had more choices and had not been selected in another role. Those who had less than four mentions in any one role were included in the appropriate roles where no other persons met the criterion of four mentions. Leaders were selected for the following roles: administrative - modern and traditional, religious - modern and traditional, education, civic, agricultural or village farming, village affairs, and innovators.*

*Innovators are not included as a category in the analysis of the present study unless they appear in one of the leadership roles.

INTERVIEW SCHEDULE

Before the construction of the interview schedule, preliminary interviews were held with farmers, extension or county agents and agricultural extension officers. The objective was to select suitable items that could be used in testing and measuring the variables. This step was followed by the construction of the questions, which were tested with some farmers and county agricultural extension agents. The experience thus obtained was used in making the schedule, which was pre-tested with interviewers who had been trained in methods of interviewing, village observation, and handling agricultural information questions that the respondents might raise. The questions were mostly structured but a few open-ended questions were asked about the village and the answers were later coded. Selected questions are given in Appendix A.

INTERVIEWER SELECTION AND TRAINING

The interviewers were selected from a large group of applicants who responded to a newspaper advertisement. About 60 were selected for interviews from about 400 applicants. The interviewing of respondents was structured around simulated interviews and the ability to carry on conversation with a stranger. No emphasis was given to formal education during training as the interviewers were all relatively well-educated, having attained at least the equivalent of complete High School education. Besides they were selected mainly from trained school teachers or persons experienced in newspaper reporting and salesmanship.

After selection the interviewers were given one week of intensive instruction on various aspects of interviewing, such as meeting respondents, establishing rapport, maintaining interview interest and checking responses. Essential to the efficient handling of responses was a wide knowledge of the agricultural development programs. This knowledge was also an invaluable resource in meeting a major emphasis of the study, meeting the village people without causing alarm and extensive suspicion. The interviewers were given the necessary information and guidance in these areas.

Following the instruction periods were simulation interview sessions and exercises in translating the interview schedules from English into the Ibo and Ibibio languages.

At the end of one week the interviewers were assigned in pairs to pretest-villages where they were to spend about two weeks in actual interviewing. They were instructed to take note of all kinds of problems they came across during interviews and in entering villages. Pretest was followed by debriefing, restructuring the schedules and standardization of translations.

DATA-COLLECTION

The data were collected during a period of about eight weeks in 71 village communities in Eastern Nigeria, by trained interviewers. Nine of these villages were discarded for not meeting certain requirements of the study design. The interviewers spent two weeks in each village that was studied. During their stay in the village, the interviewers

were visited at least once a week by supervisors who systematically selected the respondents and checked through completed interview schedules during subsequent supervisory visits. Whenever it was found necessary, because of unanswered questions, suspected interviewing mistakes, lack of qualification of village or respondent, the respondents were revisited or replaced with other qualified leaders. Nine interviewers and five supervisors (social scientists) were engaged in the data-gathering.

MISSING DATA AND ERROR CHECKS

After the data had been collected and coded, in Eastern Nigeria, they were sent to Michigan State University for checking. Two kinds of mistakes were detected; there were missing data and errors. The missing data problem was solved by checking back on the interview schedules. Mistakes during interviewing had been checked during coding by re-interviewing the respondents. By these two methods, missing data were obtained in order to complete the data about each respondent.

The second kind of mistakes were errors which were of three kinds: illegal codes, incompatible codes, and implausible codes. Illegal codes are those codes which fall outside the stipulated range of acceptable and applicable codes in any given field as specified in the code book. These were checked by use of the counter-sorter as well as by use of a computer programme at the Computer Center. Some hand checking using the print-out of data was done where a small number of respondents were

involved. In example of an illegal code is a code of 9 in a field where the response code range is 0 to 8. Incompatible codes are those that represent contradictory information to another item or other items of information. Instances are a village head who has no formal position or an innovator who has not heard about the innovation he has adopted. Implausible codes are items which provide quantitative information that is reasonably beyond normal expectation. For instance, a religious traditional leader who has a university education but has never travelled out of his country. Usually this form of error arises during coding in the form of misplaced codes. Implausible errors are detected by setting limits on every entry on the basis of observation and present knowledge; often the limits are arbitrarily based on reasonable expectation. Implausible errors were detected by using the counter-sorter, hand checking and computer programming.

THE DEPENDENT VARIABLES

Opinion leadership polymorphis consistency is the degree to which an opinion leader tends to occupy different role positions in the leadership areas of his community at the same or comparable level of influence across all roles. This measure does not involve the degree of opinion leadership, but it measures the extent to which a person is perceived as having the same or equal level of influence across several roles. Eight roles are considered in the present study. The score is computed in the following manner.

Sum $\frac{|X-\bar{X}|}{N}$ for all roles and subtract the result from 99.

X = Weighted sociometric score for each role in the study. This is computed by dividing the sociometric mentions for each role by the total number of mentions for that role in the village, and multiplying by one hundred. This step is performed for each role separately and for the leaders individually.

$\bar{X}$ = Arithmetic mean of all weighted sociometric scores for all the roles studied, whether the leader had sociometric mentions or not.

$|X-\bar{X}|$ = The absolute deviation score between the weighted score per role and the average weighted score for the leader.

Sum $|X-\bar{X}|$ = Add all deviation scores for all the roles studied.

Sum $\frac{|X-\bar{X}|}{N}$ = Mean deviation score for leader. This measures the leadership inconsistency or tendency to serve in different roles.

N = Number of roles studied.

99 = Conceptual score for the perfectly consistent leader, obtained by subtracting one from 100, the highest percentage score possible for the most consistent leader.

Polymorphism Consistency Score = $99 - \frac{|X-\bar{X}|}{N}$

The second dependent variable is the number of roles in which a leader received mentions as a leader. The highest possible score is therefore eight and the lowest is one since all the subjects in the study were leaders. This variable again does not take account of the amount of sociometric mentions for each role, it is a measure of degree in a continuum of polymorphism. These two dependent variables are correlated

*The present measurement of polymorphism consistency was developed by Everett M. Rogers (1965) for the Costa Rica UNESCO Diffusion Study.

-0.23, which is significantly different from zero at the 1 percent level. Hence, they appear to be indexes of two quite different types of polymorphism.

The Independent Variables

The independent variables in the present study are mostly computed from a combination of scale items. In those cases where there was a doubt as to the specific items to be included in the measurement of the variables concerned, the items were factor analyzed for selection. A factor loading of 0.50 was the lowest criterion of selecting an item. The following section outlines the operational definitions of the variables.

1. Life cycle is the degree to which an individual has passed through the major turning points in a normal person's life. These turning points are largely socially determined norms. It is measured by age level and the number of children owned. On the basis of studies in the Nigerian communities it was found that the median age of the respondents is 44 years. Age was categorized and scored as follows:

00 - 44 Years: 2

45 - 99 and over: 4

The number of children was scored as follows:

0 - 4 children: 1

5 - 15 children: 2

16 - 19 children: 3

Thus a young man of 20 years of age who was not married and had no child was scored 3 and a man of 45 years or more with 16

or more children had a life cycle score of 7. Age was considered a major factor in the life cycle score.

2. Education is the level of formal schooling attained; it is measured by the number of years of successful formal education completed.

<u>Scores</u>	<u>Item</u>
0.0	Never went to school
1.0	Primary school: incomplete
2.0	Primary school: complete
3.0	Secondary school: incomplete
4.0	Secondary school: complete
5.0	University: incomplete
6.0	University: complete

3. Socio-Economic style of living is the degree to which the individual has been able to supply himself with certain necessary and luxury items for his normal living. It is measured by the amount of wealth possessed, possessions and the style of living as indicated by items of non-consumable goods. These items were scored and factor analyzed.
4. Innovativeness is the degree to which a person is earlier in adopting certain new ideas than other members of his social system. Innovativeness is measured by the number of agricultural innovations actually adopted by the leader. A list of fifteen programs was provided to the respondent, and one point score was given for every program joined up to 8.

Nine or more programs had the highest score of 9.

Nine programs were chosen as the higher limit as these constituted those most frequently mentioned by respondents.

5. Economic rationality is the degree of efficient use of economic resources in the conscious attempt to maximize the benefits of the available resources. Economic rationality is defined in terms of Western economic pursuit of a high level of efficiency in the use of money and other resources in the production process. The measurement of economic rationality was both imaginary and by actual behavior during the year of the study. This dimension was measured and scored as follows:

1. Purpose of using money:

Scores

0	No economic reason
1	General altruistic
2	For near relations and personal
3	Strictly personal

2. Motivation for work:

Scores

0	To have peace of mind
1	To be respected
2	To be rich

The items for economic rationality were factor-analyzed before the index was computed. Results are given in Appendix B.

6. Agricultural knowledgibility is the degree of knowledge that an individual possesses about the new agricultural practices promoted by government officials in his area. Agricultural knowledgibility is measured by the amount of correct information that the respondent has about agricultural development programs. This was based on the number of programs the respondent could mention unaided, and this was scored 0-19. The second part of this measure was the correct knowledge possessed about 15 agricultural innovations named with the aid of the interviewer. Although the interviewer named these programs, the respondent was scored as to whether or not he could give correct information about these programs as they were mentioned. This was scored 0-30, two points for each program. Knowledgibility scores range from 0 to 49.
7. Cosmopoliteness is defined as the degree to which an individual is oriented externally to his social system (Rogers, 1962, p. 17). In the present thesis cosmopoliteness is measured by the degree of external contacts that the respondent had throughout his lifetime. Cosmopoliteness is indicated by the places the respondent has lived in or traveled to weighted by travel distance and urbanization. Scoring was as follows:

Scores

1	Village or town within respondent's county
2	City within respondent's county
2	Village or town outside respondent's county
3	City outside respondent's county
3	Village or town outside Eastern Region
4	City outside Eastern Region

Cosmopolitaness scores ranged from 0 to 44.

8. Opinionatedness is defined as the willingness that a person has to express his opinions in impersonal matters and is operationalized as the ability of the respondent to give an answer to opinionated statements. The questions consisted mainly of two types: one type was made of two questions to which the leader had to devise his answers structuring them on the basis of his knowledge of village problems and causes of disagreement. The other was a set of opinion and half-truth statements to which the leader had to indicate agreement or disagreement. After factor analysis only the latter group of items were used, because these items formed the larger of the two factors and contained items that better operationalized opinionatedness. Scoring was as follows:

Scores

0	No opinion given or "don't know"
1	Opinion expressed

There were 26 items all of which were run for factor analysis. The final score range was 0 to 7; the results are given in Appendix B.

9. Mass media exposure or consumption is the degree to which an individual seeks or gains information from the mass media of communication. Mass media exposure is measured by the extent to which the respondent uses newspapers, agricultural newsletters, and the radio in gaining information, especially on the agricultural development scheme. This was measured by proximity to information source owners or ownership of source and frequency of use. These were scored as follows:

Scores

- | | |
|---|---|
| 0 | Respondent does not live where a person receives newspapers |
| 0 | Respondent lives where a person receives newspapers |

1. Respondent reads newspaper or is read to with following frequency:

Scores

- | | |
|---|---|
| 0 | Not applicable or respondent cannot read and is not read to |
| 1 | Less than once a month |
| 2 | Once a month |
| 3 | Twice/thrice a month |
| 4 | Once a week |
| 5 | Twice/thrice a week |
| 6 | Every day |

Radio listening was similary scored.

2. Agricultural newsletter reading:

Scores

0	Not applicable, respondent cannot read
2	Respondent reads newsletter
2	Respondent lives where someone owns a radio
2	Respondent listens to agricultural extension radio broadcast

Total mass media or consumption score was 20, scores
ranged from 0 to 20.

10. Group participation is the amount of social gregariousness
that a person has by participating in social organizations.
Group participation is measured by the extent that a
respondent holds membership and positions in formal village
organizations and participates in decision-making.

General and Empirical Hypotheses

General Hypothesis (G.H.) 1-1. There is a positive relationship between polymorphism consistency of opinion leadership and the life cycle of leaders.

Empirical Hypothesis (E.H.) 1-1. There is a positive relationship between polymorphism consistency scores of Eastern Nigerian leaders and their life cycle scores.

G.H. 1-2. There is a positive relationship between the number of leadership roles for which leaders are mentioned and their life cycle.

E.H. 1-2. There is a positive relationship between the number of leadership roles in which the Eastern Nigerian leaders received sociometric mentions and their life cycle scores.

G.H. 2-1. There is a negative relationship between polymorphism consistency of opinion leadership and the educational level of the leaders.

E.H. 2-1. There is a negative relationship between Eastern Nigerian leaders' polymorphism consistency scores and their educational level scores.

G.H. 2-2. There is a negative relationship between the number of roles in which leaders receive sociometric mentions and the educational level of the leaders.

E.H. 2-2. There is a negative relationship between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their educational level scores.

G.H. 3-1. There is a positive relationship between polymorphism consistency of opinion leadership and socio-economic style of living.

E.H. 3-1. There is a positive relationship between polymorphism of opinion leadership consistency score of Eastern Nigerian leaders and their socio-economic style of living scores.

G.H. 3-2. There is a positive relationship between the number of roles in which a leader received sociometric mentions and the socio-economic style of living of the leaders.

E.H. 3-2. There is a positive relationship between the number of roles in which the Eastern Nigerian leader received sociometric mentions and the socio-economic style of living score of the leaders.

G.H. 4-1. There is a negative relationship between polymorphism consistency of opinion leadership and agricultural innovativeness.

- E.H. 4-1. There is a negative relationship between polymorphism consistency scores of Eastern Nigerian leaders and their agricultural innovativeness scores.
- G.H. 4-2. There is a negative relationship between the number of roles in which leaders receive sociometric mentions and their agricultural innovativeness.
- E.H. 4-2. There is a negative relationship between the number of roles in which leaders in Eastern Nigeria receive sociometric mentions and their agricultural innovativeness scores.
- G.H. 5-1. There is a negative relationship between polymorphism consistency of opinion leadership and economic rationality.
- E.H. 5-1. There is a negative relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their economic rationality scores.
- G.H. 5-2. There is a negative relationship between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their economic rationality scores.
- E.H. 5-2. There is a negative relationship between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their economic rationality scores.
- G.H. 6-1. There is a negative relationship between polymorphism consistency of opinion leadership and knowledgeability about agricultural innovations.
- E.H. 6-1. There is a negative relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their scores on knowledgeability about agricultural innovations.
- G.H. 6-2. There is a negative relationship between the number of leadership roles in which leaders are mentioned and their knowledgeability about agricultural innovations.
- E.H. 6-2. There is a negative relationship between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their scores on knowledgeability about agricultural innovations.
- G.H. 7-1. There is a positive relationship between polymorphism consistency of opinion leadership and opinionatedness.

- E.H. 7-1. There is a positive relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their opinionatedness scores.
- G.H. 7-2. There is a positive relationship between the number of roles in which leaders are mentioned and their opinionatedness.
- E.H. 7-2. There is a positive relationship between the number of roles in which leaders receive sociometric mentions and their opinionatedness scores.
- G.H. 8-1. There is a negative relationship between polymorphism consistency of opinion leadership and cosmopoliteness.
- E.H. 8-1. There is a negative relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their cosmopoliteness scores.
- G.H. 8-2. There is a negative relationship between number of leadership roles in which leaders receive mentions and cosmopoliteness.
- E.H. 8-2. There is a negative relationship between number of leadership roles in which Eastern Nigerian leaders receive sociometric mentions and their cosmopoliteness scores.
- G.H. 9-1. There is a negative relationship between polymorphism consistency of opinion leadership and mass media consumption.
- E.H. 9-1. There is a negative relationship between polymorphism consistency scores of Eastern Nigerian leaders and their mass media consumption scores.
- G.H. 9-2. There is a negative relationship between the number of leadership roles in which leaders are mentioned and mass media consumption.
- E.H. 9-2. There is a negative relationship between the number of leadership roles in which Eastern Nigerian leaders are mentioned and their mass media consumption scores.
- G.H. 10-1. There is a positive relationship between polymorphism consistency of opinion leadership and formal group participation.
- E.H. 10-1. There is a positive relationship between polymorphism consistency scores of Eastern Nigerian leaders and their formal group participation scores.

G.H. 10-2. There is a positive relationship between number of leadership roles and formal group participation.

E.H. 10-2. There is a positive relationship between the number of roles in which Eastern Nigerian leaders received sociometric mentions and their formal group participation scores.

Method of Analysis

Zero-order correlational analysis was used in testing the hypotheses. The hypothesis tested is that the zero-order correlation between polymorphism consistency and each of the independent variables is zero. The statistical hypotheses for the second dependent variable is that the zero-order correlation between the number of leadership roles and each of the independent variables is zero. The alternative hypothesis in each case is that the zero-order correlation is not zero.

The test statistic used was the F test. The data were coded as described in the present chapter, and the indexes and analyses were carried out on the 3600 Computer in the Computer Center at Michigan State University. The levels of statistical significance are 1 per cent and 5 per cent, and the size of the sample is 834. Table 10 in Chapter IV is provided to show the linearity of the relationship among variables.

CHAPTER IV

FINDINGS

In Chapter III, the general hypotheses for each dependent variable and the empirical hypotheses have been stated and the measures to operationalize the concepts were described. The measures are inter-correlated and the hypotheses are tested for statistical significance by the method of zero-order correlation with the F test. The purpose of this chapter is to report the results of the relevant statistical tests of the data concerning each empirical hypothesis. Because of the need for clarity, the hypotheses for each dependent variable, as well as the levels of the hypotheses, are stated again in the following pages.

Statements and Tests of Hypotheses

General Hypothesis 1-1. There is a positive relationship between polymorphism of opinion leadership and the life cycle of leaders.

Empirical Hypothesis 1-1. There is a positive relationship between polymorphism consistency scores of Eastern Nigerian leaders and their life cycle scores.

The hypotheses stated in the null form is: There is no relationship between the Eastern Nigerian leader's polymorphism consistency scores and the life cycle score. The computed zero-order product

moment correlation coefficient is -0.08 , which is significantly different from zero at the 1 per cent level. The alternative empirical hypothesis is not confirmed as stated. The finding shows a significant negative relationship between the polymorphism consistency scores of leaders and their life cycle scores.

Thus General Hypothesis 1-1 is not confirmed.

General Hypothesis 1-2. There is a positive relationship between the number of leadership roles for which leaders are mentioned and life cycle.

Empirical Hypothesis 1-2. There is a positive relationship between the number of leadership roles for which the Eastern Nigerian leader receives sociometric mentions and the life cycle scores of the leaders.

The hypothesis stated in the null form is: There is no relationship between the number of leadership roles for which the Eastern Nigerian leader receives sociometric mentions and the life cycle scores of the leaders. The computed zero-order product-moment correlation coefficient in this situation is -0.18 , which is significantly different from zero at the 1 per cent level. The empirical hypothesis is confirmed. Life cycle therefore explains nearly 4 per cent of the variability in the number of leadership roles.

Thus General Hypothesis 1-2 is confirmed.

Table 10. Selected Attributes Differentiating Leaders by Number of Roles: Mean Scores by Variables*

Variables	Total Mean						
		N=305	N=241	N=159	N=95	N=27	N=7
1. Age	47.2	44.5	48.5	49.0	49.1	48.3	52.1
2. Life Cycle	4.7	4.4	4.7	5.0	5.0	5.0	4.9
3. Education	1.0	1.1	1.0	0.9	0.9	0.9	1.1
4. Socio-Economic Style of Living	6.1	6.0	6.2	6.0	6.4	6.0	6.3
5. Innovative- ness	1.0	1.0	1.0	1.0	1.2	1.6	1.9
6. Economic Rationality	4.5	4.4	4.5	4.6	4.8	4.4	5.7
7. Knowledge About Agricultural Innovations	20.0	19.6	20.1	19.3	21.0	23.8	22.7
8. Cosmopolite- ness	2.9	3.0	2.8	2.9	3.0	2.1	2.1
9. Mass Media Consumption	12.7	12.6	12.6	12.9	12.9	12.1	11.7
10. Group Participation	1.7	1.2	1.8	2.1	2.2	2.0	2.7
11. Opinionated- ness	7.0	7.0	6.9	6.9	7.0	7.0	7.0
12. Polymorphism Consistency	88.4	89.5	88.9	87.0	86.4	86.7	88.3

*Table 10 provides mean scores by variable according to degree of polymorphism as measured by number of roles. It is given to show that the variables are linearly related. The sizes of categories five and six are too small and if combined the tailing of the distribution disappears.

Table 11. Summary of Findings

Independent Variables	Predicted Re- lationship with Dep. Var.	Dependent Variable Poly. Consis.	Findings Role Polymorphism
1. Life Cycle	+	-0.08*	0.18**
2. Education	-	-0.09*	-0.08*
3. Socio-Economic Style of Living (Status)	+	-0.07*	0.03
4. Innovativeness	-	0.06	0.08*
5. Economic Rationality	-	0.01	0.07*
6. Knowledge About Agricultural Innovations	-	0.04	0.07*
7. Opinionatedness	+	0.04	0.03
8. Cosmopolitaness	-	-0.07*	-0.05
9. Mass Media Consumptions	-	0.04	0.01
10. Group Participation	+	-0.05	0.28**

*Significantly different from zero at 5 percent level.

**Significantly different from zero at 1 percent level.

General Hypothesis 2-1. There is a negative relationship between polymorphism of opinion leadership and the educational level of the leaders.

Empirical Hypothesis 2-1. There is a negative relationship between Eastern Nigerian leaders' polymorphism consistency scores and their educational level scores.

The null hypothesis is: There is no relationship between Eastern Nigerian leaders' polymorphism consistency scores and their educational level scores. The zero-order correlation coefficient obtained for the present hypothesis is -0.09 , which is significantly different from zero at the 5 per cent level. The alternative empirical hypothesis is confirmed. Thus education explains about 1 per cent of variance in polymorphism consistency.

Thus, General Hypothesis 2-1 is confirmed.

General Hypothesis 2-2. There is a negative relationship between the number of roles in which leaders receive sociometric mentions and the educational level of the leaders.

Empirical Hypothesis 2-2. There is negative relationship between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their educational level scores.

The null hypothesis is that there is no relationship between Eastern Nigerian leaders' polymorphism consistency scores and their educational level scores. The zero-order correlation coefficient for the hypothesis is -0.08 , which is significantly different from zero at the 5 per cent level. The alternative empirical hypothesis is confirmed. Education explains about 1 per cent of the degree of polymorphism as measured by number of roles.

Thus, General Hypothesis 2-2 is confirmed.

General Hypothesis 3-1. There is a positive relationship between polymorphism of opinion leadership and socio-economic style of living.

Empirical Hypothesis 3-1. There is a positive relationship between polymorphism of opinion leadership consistency score of Eastern Nigerian leaders and their socio-economic style of living scores.

To test the null hypothesis of no relationship between polymorphism consistency and socio-economic style of living, the product-moment correlation coefficient was computed and found to be 0.07 , which is significantly greater than zero at the 5 per cent level. The alternative empirical hypothesis was not confirmed.

Thus, General Hypothesis 3-1 was not confirmed. However, the variance in polymorphism consistency explained by socio-economic style of living is less than 1 per cent.

General Hypothesis 3-2. There is a positive relationship between the number of roles in which a leader received sociometric mentions and the socio-economic style of living of the leaders.

Empirical Hypothesis 3-2. There is a positive relationship between the number of roles in which the Eastern Nigerian leader received Sociometric mentions and the socio-economic style of living score of the leaders.

The null hypothesis tested is that no relationship exists between Eastern Nigerian leader's polymorphism consistency scores and their educational level scores. The zero-order correlation coefficient computed for testing the present hypothesis was 0.05, which is not significantly different from zero. Both alternative empirical hypothesis and General Hypothesis 3-2 are not confirmed.

General Hypothesis 4-1. There is a negative relationship between polymorphism of opinion leadership and agricultural innovativeness.

Empirical Hypothesis 4-1. There is a negative relationship between the polymorphism consistency scores of Eastern Nigeria leaders and their agricultural innovativeness scores.

The null hypothesis is that there is no relationship between Eastern Nigerian leaders' polymorphism consistency scores and their educational level scores. The zero-order correlation coefficient obtained for the present hypothesis is 0.06, which is not significantly different from zero. The alternative empirical hypothesis and General Hypothesis 4-1 are not confirmed, however, since the relationship found was positive rather than negative.

General Hypothesis 4-2. There is a negative relationship between the number of roles in which leaders receive sociometric mentions and their agricultural innovativeness.

Empirical Hypothesis 4-2. There is a negative relationship between the number of roles in which leaders in Eastern Nigeria receive sociometric mentions and their agricultural innovativeness scores.

The null hypothesis tested is that no relationship exists between the number of roles in which leaders receive sociometric mentions and their agricultural innovativeness. The zero-order correlation coefficient computed to test the present empirical hypothesis was 0.08, which was significantly different from zero at the 1 per cent level. However, the empirical and the General Hypotheses are not confirmed as stated since the relationship found is positive rather than negative as predicted. Agricultural innovativeness explains only about 1 per cent of the variances in degree of polymorphism as measured by number of roles.

General Hypothesis 5-1. There is a negative relationship between polymorphism of opinion leadership and economic rationality.

Empirical Hypothesis 5-1. There is a negative relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their economic rationality scores.

The null hypothesis is that there is no relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their economic rationality scores. The zero-order correlation coefficient computed is 0.0 , which is not significantly different from zero. Besides the relationship found is in effect zero, rather than negative as predicted. The empirical hypothesis is not confirmed. Thus, General Hypothesis 5-1 is not confirmed.

General Hypothesis 5-2. There is a negative relationship between the number of roles in which leaders are mentioned and their economic rationality.

Empirical Hypothesis 5-2. There is a negative relationship between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their economic rationality scores.

The null hypothesis is that there is no relationship between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their economic rationality scores. The zero-order correlation computed is 0.07, which is significant at the 5 per cent

level. The alternative empirical hypothesis is however, not confirmed and the General Hypothesis 5-2 is also not confirmed because the predicted relationship was negative rather than positive. Economic rationality therefore explains less than 1 per cent of degree of polymorphism as measured by number of roles.

General Hypothesis 6-1. There is a negative relationship between polymorphism of opinion leadership and knowledgeability about agricultural innovations.

Empirical Hypothesis 6-1. There is a negative relationship between the polymorphism scores of Eastern Nigerian leaders and their scores on knowledgeability about agricultural innovations.

The null hypothesis that there is no relationship between the polymorphism scores of Eastern Nigerian leaders and their scores on knowledgeability about agricultural innovations was tested. The zero-order correlation coefficient computed was 0.04, which is not significantly different from zero. Both the alternative empirical hypothesis and General Hypothesis 6-1 are not confirmed.

General Hypothesis 6-2. There is a negative relationship between the number of leadership roles in which leaders are mentioned and their knowledgeability about agricultural innovations.

Empirical Hypothesis 6-2. There is a negative relationship between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their scores on knowledgeability about agricultural innovations.

The null hypothesis tested is that no relationship exists between the number of roles in which Eastern Nigerian leaders receive sociometric mentions and their scores on knowledgeability about agricultural innovations. The zero-order correlation between number of roles and agricultural knowledgeability is 0.07, which is significant at the 5 per cent level. The alternative empirical hypotheses as well as General Hypothesis 6-2 are not, however, confirmed as stated since the relationship found is positive rather than negative. Agricultural knowledgeability explains less than 1 per cent of variances in degree of polymorphism as measured by number of roles.

General Hypothesis 7-1. There is a positive relationship between polymorphism of opinion leadership and opinionatedness.

Empirical Hypothesis 7-1. There is a positive relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their opinionatedness scores.

The null hypothesis is: There is no relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their

opinionatedness scores. The zero-order correlation coefficient between polymorphism consistency and opinionatedness is 0.04, which is not statistically significant. The alternative empirical hypothesis is not confirmed and so General Hypothesis 7-1 is not confirmed.

General Hypothesis 7-2. There is a positive relationship between the number of roles in which leaders are mentioned and their opinionatedness.

Empirical Hypothesis 7-2. There is a positive relationship between the number of roles in which leaders receive sociometric mentions and their opinionatedness scores.

The null hypothesis is that no relationship exists between the number of roles in which leaders receive sociometric mentions and their opinionatedness scores. The zero-order correlation between number of roles and opinionatedness is 0.03, which is not significantly different from zero. The alternative empirical hypothesis is not confirmed. Thus General Hypothesis 7-2 is not confirmed.

General Hypothesis 8-1. There is a negative relationship between polymorphism of opinion leadership and cosmopolitaness.

Empirical Hypothesis 8-1. There is a negative relationship between the polymorphism consistency scores of Eastern Nigerian leaders and their cosmopolitaness scores.

The null hypothesis is that no relationship exists between polymorphism consistency scores of Eastern Nigerian leaders and their cosmopolitaness scores. The zero-order correlation coefficient computed is -0.02 , which is not significantly different from zero. The alternative empirical hypothesis is confirmed so General Hypothesis 8-1 is confirmed.

General Hypothesis 8-2. There is a negative relationship between number of leadership roles in which leaders receive mentions and cosmopolitaness.

Empirical Hypothesis 8-2. There is a negative relationship between number of leadership roles in which leaders receive mentions and their cosmopolitaness scores.

In the null form the present hypothesis may be stated that there is no relationship between number of leadership roles in which leaders receive mentions and their cosmopolitaness scores. The zero-order correlation coefficient computed is -0.05 , which is not significantly different from zero. The empirical hypothesis as well as General Hypothesis 8-2 are not confirmed.

General Hypothesis 9-1. There is a negative relationship between polymorphism of opinion leadership and mass media consumption.

Empirical Hypothesis 9-1. There is a negative relationship between polymorphism consistency scores of Eastern Nigerian leaders and their mass media consumption scores.

The null hypothesis is that there is no relationship between polymorphism consistency scores of Eastern Nigerian leaders and their mass media consumption scores. The zero-order correlation coefficient computed is 0.04, which is not significantly different from zero. Thus, both the empirical hypothesis and General Hypothesis 9-1 are not confirmed.

General Hypothesis 9-2. There is a negative relationship between the number of leadership roles in which leaders are mentioned and mass media consumption.

Empirical Hypothesis 9-2. There is a negative relationship between the number of leadership roles in which Eastern Nigerian leaders are mentioned and their mass media consumption scores.

The null hypothesis is that no relationship exists between the number of leadership roles in which Eastern Nigerian leaders are mentioned and their mass media consumption scores. The zero-order correlation coefficient is 0.01, which is not significantly different from zero. Both the empirical hypothesis and general hypothesis 9-2 were not confirmed.

General Hypothesis 10-1. There is a positive relationship between polymorphism of opinion leadership and formal group participation.

Empirical Hypothesis 10-1. There is a positive relationship between polymorphism consistency scores of Eastern Nigerian leaders and their formal group participation scores.

The null hypothesis is that no relationship exists between polymorphism of opinion leadership and formal group participation. The zero-order correlation coefficient computed is -0.05 , which is not significantly different from zero. The empirical hypothesis as well as General Hypothesis 10-1 are not supported.

General Hypothesis 10-2. There is a positive relationship between number of leadership roles and formal group participation.

Empirical Hypothesis 10-2. There is a positive relationship between the number of roles in which Eastern Nigerian leaders received sociometric mentions and their formal group participation scores.

The null hypothesis is that no relationship exists between the number of roles in which Eastern Nigerian leaders are mentioned and their formal group participation scores. The zero-order correlation

coefficient computed is 0.28, which is significantly different from zero. The empirical hypothesis was confirmed. Thus General Hypothesis 10-2 is confirmed. About 9 per cent of the variance in degree of polymorphism as measured by number of roles is attributable to social participation in formal groups.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

The present thesis examined the relationship between polymorphism of opinion leadership and modernizing behavior. The sample of 834 leaders in the present study was drawn from the most densely populated agricultural areas of Ibo and Ibibio in Eastern Nigeria. The main objective of the present study was to examine the extent to which polymorphism is related to modernizing behavior in a developing society. Another objective was to explore the extent to which polymorphism is a useful tool in studying the diffusion and adoption of new agricultural practices. Polymorphism is defined by Merton (1957, p. 414) as the degree to which a single leader is sought for information about a variety of issues which are sometimes unrelated. It is otherwise defined as the degree to which an individual combines leadership activities for different issues or types of roles.

The basic assumption of the present analysis was that polymorphism or generalized opinion leadership (as evidenced by previous studies reviewed) is a social fact; that is, that polymorphism does exist as a social characteristic of leaders. This assumption was borne out by the fact that of the 834 leaders in the study, 529 (62.2 per cent) were mentioned in more than one leadership role. The underlying notion of the sampling and analysis is that there is nothing static about generalized leadership, that it is a dynamic process whose main element,

like that of diffusion, is time. If generalized opinion leadership exists at all it is constantly subject to the perceptual and evaluative flux of society. However, there is a definite trend in polymorphic behavior transformations from more specialized to more generalized forms; thus the present study sought to uncover any such existing trend in relation to specific behavior types as measured by the independent variables.

Of the eight roles considered in the present study, the highest number of roles perceived for any of the respondents was size; seven persons or 0.82 per cent of the leaders were so mentioned. The respondents were drawn from 71 villages, about half of which had successful agricultural innovation projects, and the other half were less successful villages. A factor analysis of roles shows that all of the roles are significantly related with six forming two viable factors of three roles each; the third factor consists of only two roles. This finding appears to support Merton's need for underlying relationship among roles.* The sampling design was adopted because one of the aims of the larger Diffusion Project was to find what kinds of programs were most successful in various specified kinds of villages.

The data were coded in Nigeria, and punched on IBM cards at the Computer Center at Michigan State University, where error checks were also performed.

Polymorphism was measured in two ways. Polymorphism consistency was measured by variations in sociometric mentions of leaders across

*Role factors are not cleanly split into modern and traditional but are formed of mixed elements as follows: administrative traditional, educational, and religious modern for the first factor; administrative modern, religious traditional and village affairs, and thirdly, civic and village affairs roles.

eight roles using weighted (percentile) scores. The second method used the number of spheres of leadership activities in which a leader received sociometric mentions. There is a significant relationship of -0.23 (significant at the 1 percent level) between polymorphism consistency and number of roles in which leaders were mentioned. This finding shows that the two concepts of polymorphism considered in the present study are largely tapping different dimensions, the one explaining only about 5 per cent of the other.

Some of the independent variables have relatively high correlations with self-perceived opinion leadership in both agricultural and village political communication. For instance, knowledge about agricultural innovations explains nearly 36 per cent of the variance in self-perceived opinion leadership, and socio-economic style of living explains over 25 per cent. However, these independent variables (and all the others) have low correlations with polymorphism; group participation explains about 9 per cent of role polymorphism.

Four of the independent variables analyzed in the present survey of Eastern Nigerian village leaders are significantly related to polymorphism consistency. These are life cycle, education, socio-economic style of living and cosmopolitaness. These are four of the five variables, including social group participation, that had negative relationship with polymorphism consistency. The other five are positively and not significantly related to polymorphism consistency. The four significant relationships have relatively high significant relationships among themselves while the non-significant variables have comparatively low significant and non-significant inter-relationships.

Two of the four significantly related to polymorphism consistency are contrary to hypothesized relationships. These are life cycle and socio-economic style of living. It is found that both of these variables are negatively rather than positively related to polymorphism. This is contrary to expectations and indicates that the younger leaders are perceived as more consistent. The hypothesis that there is a negative relationship between polymorphism consistency of opinion leadership and the educational level of the leaders was confirmed. This is a negative relationship indicating that leaders who score high on consistency tend to have less education. From this finding the observation that highly polymorphic leaders in general have less formal education than their peers tends to be substantiated.

Six of the ten independent variables are significantly related to the number of roles, a second measure of polymorphism. These are formal group participation, life cycle, innovativeness, education, economic rationality and knowledge about agricultural innovations. Only education has a negative relationship with number of leadership roles. The hypothesis that there is a positive relationship between the number of leadership roles for which leaders are mentioned and life cycle was confirmed. This means that older people tend to occupy more leadership roles; that is, the older people tend to score high on role polymorphism. It was also found that there is a positive relationship between number of leadership roles and formal group participation.

Discussion

It is important to note that these relationship tend to show an indication that polymorphism consistency is most strongly related to demographic variables: life cycle, education, socio-economic style of living, and cosmopolitaness. On the other hand, number of leadership roles (or a measure of consistency) is more strongly related to life cycle, education, innovativeness, economic rationality, knowledge about agricultural innovations and group participation.

Of the ten variables, eight have significant relationships with polymorphism measured in terms of both consistency scores and number of roles score. One of these, education, is in the predicted direction for both notions of the dependent variable; education shows a negative relationship with both polymorphism consistency and number of leadership roles.

A basic assumption about polymorphism is that it is characteristic of traditionalism, both in the structure of society and in individual social behavior. Three variables, innovativeness, economic rationality and knowledge about agricultural innovations, are considered highly characteristic of modern societies. Thus, a negative relationship was predicted between polymorphism and these modernizing variables. If the assumption is accepted that polymorphism is traditionalistic, then it may be generalized from the present study that polymorphic leadership in Eastern Nigeria is relatively less traditionalistic than in societies that have not adopted innovations in agriculture. However, the fact that these variables are not significantly related to polymorphism consistency (but are to the number of leadership roles) points to a reservation.

The demographic variables of life cycle, education and socio-economic style of living show somewhat lesser departure from our expectations in terms of correlates with the number of roles measure of polymorphism. The negative relationship between polymorphism consistency and life cycle indicates that persons who are younger tend to be perceived as holding fewer formal leadership positions for various issues. Life cycle increases with the number of leadership roles. The combined generalization about life cycle is that younger people tend to be more consistent in polymorphism, and leaders in fewer roles than older people who tend to occupy more leadership roles and are perceived as relatively inconsistent. This agrees with the general notion that younger people are perceived as more monomorphic while older people are seen as more polymorphic.

Education is negatively related to polymorphism consistency and to number of leadership roles. This means that most of the plural leadership roles are occupied by persons of relatively low education who are perceived as more consistent in their leadership activities.

Socio-economic style of living shows a significant positive relationship with polymorphism consistency. This may result from the fact that prestige, esteem and influence are commonly associated with style of living and, being relatively wealthy, the leaders are approached for assistance in solving many different kinds of problems. A higher level of living may indicate success in solving problems and therefore also serves as an index of perceived general competence. However, high status persons tend to be more concentrated on their areas of activity,

by choosing relatively few interests in other words they tend to be consistent at the lower degree of polymorphism by number of roles. Thus, number of roles is not significantly related with style of living. Specialized leaders thereby become strongly associated with their own interest activities rather than others. In this way they are selected as sources of advice in those areas in which they are perceived to be most interested. The positive relationship indicates that socio-economic style of living is one of the factors that may be used in selecting persons for polymorphic leadership roles. High status persons also maintain their social salience by giving information; thus, socio-economic style of living is found in the present study to be positively associated with such variables as agricultural knowledge, cosmopolitaness, social participation, and opinionatedness. These factors are particularly important in maintaining status and the tendency for persons to be looked upon as competent, expert and strategically located in the village social hierarchy. In any case, the number of leadership roles does not increase with socio-economic style of living. Thus, the nature of the perception of the leader by the community, that is, polymorphism consistency, rather than positions or activities that he engages in becomes the main relevant factor that could be predicted from socio-economic style of living.

The other two variables significantly related with number of leadership roles are economic rationality and knowledge about agricultural innovations. Formal group participation is positively related with the number of roles, as predicted, but is not significantly related with polymorphism consistency. This means that group affiliation is not

important in determining how the leader is perceived. This may result from the fact that participation does not always come before leadership behavior especially in areas of informal leadership which tends to be strongly associated with issues rather than with social participation. At the same time, seeking one's opinion on certain matters at the level of interaction is influenced more by attractiveness and affect than by how the person sought actually participates in social activities especially as participation in this study is very heavily weighted by office holding or formal activities.

On the basis of these findings the adequacy of the general assumption of a relationship of polymorphism to traditionalism needs modification. Polymorphism has been found to be associated with modernizing behavior in a transitional society in three hypotheses dealing with the number of roles. A greater incidence of polymorphism is expected in the less developed societies than in the advanced countries because of the greater deficiency in the availability of specialized knowledge. In both societies there are both highly consistent specialist leaders and highly consistent general leaders. On the basis of the stipulation more significant relationships should occur in advanced societies between polymorphism at the less generalized levels than at the more specialized levels. The low correlation coefficients may explain the fact that modernization is at a very low level. The differences in the direction of association indicate that the polymorphism is not exclusively traditionalistic.

CONCLUSIONS

Consistency of polymorphism among leaders is a measure of the extent to which perception of a leader's role pattern remains unchanged across several roles. In other words, it measures the extent to which a leader is perceived in a similar way across various role sets. The fewer the role sets and the more similar the scores among the eight roles, the higher the consistency score. This present concept of polymorphism is similar to the balance concept in-so-far as it is relevant to the cognitive and affective consistency with which people perceive their leaders. The present study generalizes that given the social orientation and personality factors that qualify a person for leadership, consistency of role combinations is associated with the leader's life cycle, education and socio-economic style of living. There is a possibility that the more relevant the criterion of choice of leaders (during a study) is to the purpose for which the group selects its leaders, the more consistent will be their perception of leadership role combination (Mouten, 1955, p. 45). Finally, it may be concluded that polymorphism of opinion leadership and modernization behavior are not necessarily antithetical elements of behavior that are diametrically opposed. Both can exist together depending upon the underlying structure of the society at the time rapid change begins to occur.

IMPLICATIONS FOR RESEARCH

The implications given here are mainly suggested as ways of further exploring polymorphism in local communities, both urban and rural.

1. There is need to find out what leadership roles tend to be combined and what the characteristics of these kinds of leaders are who combine them.

2. Polymorphism could be a useful tool in differentiating between different kinds of communities in terms of their levels of innovativeness as well as socio-economic development. Thus, a categorization of villages on average leader polymorphism could be used in relating leadership perceptions to the level of development of the village. In this case, the village would be the unit of analysis.

3. There is need to further explore the relationship of polymorphism to additional demographic and social variables for predicting polymorphism of leadership structures in societies. These also would indicate the major criteria of leadership acceptance within communities.

4. Polymorphism consistency, when used in a correlational study, may serve as a useful tool in structuring the public image of leaders that the individuals hold. The clarity of role definition within the community tends to be indicated by the consistency in sociometric choice and expectations that individuals have for particular roles or role combinations in leadership. Where leadership activities are well defined, there should be more agreement as to who the functioning leaders are, therefore, higher consistency which may also indicate village integration.

The present study suggests that inconsistency or consistency in leadership perception as measured by polymorphism inconsistency or

consistency scores may indicate both sources of conflict in a community as well as conflicting expectations. This is apparent in respect to the present results obtained with age and social participation, the variables most strongly associated with polymorphism in terms of number of roles. There is a need for further exploration of leadership polymorphism along these lines in order to isolate areas of established and conflicting expectations. Such a study might be able to isolate variables about which conflicts develop.

The notion of polymorphic leadership could be explored in more advanced societies in order to determine its presence and the relevant variables for comparative purposes. The overlapping of generalized leadership has been found in the United States by Polsby (1959) and Form and D'Antonio (1959).*

In summary, although polymorphism is not strongly characterized by modern behavior, it is clearly not an exclusive feature of "primitive" behavior. It can therefore be considered an element of established behavior system in a leadership situation in both traditionalistic and modern communities. Polymorphism therefore varies with the social behavior of the individual.

*Form and D'Antonio found the presence of "overlap" in some Mexican border communities of the United States. Polsby found the same thing in New Haven, Connecticut. There is, however, a much lower degree of polymorphism than was found in the present study in both investigations.

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APPENDIX A

SELECTED QUESTIONS FROM
PHASE I INTERVIEW SCHEDULE

VARIABLE	SCHEDULE QUESTION	QUESTION
Life Cycle		
1	2	How old are you? (YEARS: _____) Are you married? CIRCLE 1--YES 0--NO (IF YES) How many children do you have? (Number: _____) How many of your children have ever attended classes in school? (Number: _____) What is the highest class or standard that anyone of your children has reached in school? 0 -- primary (incomplete) 1 -- primary (complete) 2 -- secondary (incomplete) 3 -- secondary (complete) 4 -- university (incomplete) 5 -- university (complete) (Changed Code 0-6 to include never went to school 0)
Education		
3	5	Did you ever attend classes in school? CIRCLE 1--YES ASK What class or standard did you reach? IF YES 0--NO CIRCLE 0 -- primary (incomplete) 1 -- primary (complete) 2 -- secondary (incomplete) 3 -- secondary (complete) 4 -- university (incomplete) 5 -- university (complete) (Changed Code 0-6 to include never went to school 0) ADDITIONAL 1 -- teacher training/certificates ANSWERS 2 -- other professional schooling

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VARIABLE	SCHEDULE QUESTION	QUESTION
Socio-Economic Status	4 74	Finally, do you own: CIRCLE EACH ITEM HE OWNS (a) wrist watch? (b) cushioned chairs? (c) camera? (d) clock? (e) house? (f) radio? (g) cupboard? one/two (h) framed photo- CIRCLE: graphs? (i) bicycle? stoney; mud, (j) iron bed? (k) laced concrete, shoes? thatched, (l) kerosene lamp? ainc roof? (m) 1966 calendar? (n) long trousers? (o) drinking tumblers? (p) Do you ear bread? (1--Yes) (0--NO) (q) Do you drink beer? (1--YES) (0--NO)
	5 11	Do you hold any positions in the village? CIRCLE 1--Yes ASK What positions?(PROBE) 2--No (a) _____ (b) _____ (c) _____
	6 14	Are you a member of (GROUP NAME) (The group with the most influence in village affairs today?) CIRCLE 1--YES ASK Do you hold office in (GROUP NAME) 0--NO CIRCLE 1--YES 0--NO Do you yourself, actually help make the final decisions of (GROUP NAME)? CIRCLE 1--YES 0--NO
Innovative- ness	7 32	Did you, yourself, ever join or parti- cipate in any of these agricultural extension programs? CIRCLE 1--YES 0--NO IF YES Which ones? WRITE PROGRAM LETTERS BELOW When did you join (EACH PROGRAM JOINED)? WRITE YEAR JOINED Program Letter: () Year Joined: (19__) Program Letter: () Year Joined: (19__) Program Letter: () Year Joined: (19__) Program Letter: () Year Joined: (19__)

VARIABLE	SCHEDULE QUESTION	QUESTION	
Rationality 8	28	Here is a different kind of question. Do you work to have peace of mind; to be respected; or to be a rich man? 0--to have peace of mind DETERMINE ONE 1--to be respected ANSWER 2--to be a rich man	
	9	29	If you had all the money you needed, what would you do with it?
	68	CIRCLE	How did you get your farm land? 0--given by family 2--bought 1--rented pledged 3--other (SPECIFY: _____)
	69		During the busiest month of this year, what was the highest number of labourers you hired to work on your farm(s)? (Number: _____)
	70	CIRCLE	Do you hire any permanent labourers to work on your farm(s)? 1--YES ASK How many? (Number: _____) 2--NO
Opinionated- ness 10	15	What do you think are the three most important problems for the people in this "village"? a. _____ b. _____ c. _____	
	16		In all villages there are sources of disagreement, what do people in this village disagree about?
Self-Perceived Opinion Leadership	21	During the past six months have you told anyone about some new idea concerning village affairs? CIRCLE 1--YES 0--NO During the past two weeks, has any person in the village come to you to ask your opinions or advice on village affairs?	
	23		Compared with your friends in the "village" are you more likely, or less likely, to be asked for advice on village affairs?

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VARIABLE	SCHEDULE QUESTION	QUESTION
	24	Thinking back to your last discussion of village affairs, were you asked for your opinions about village affairs, or did you ask someone else for his opinions?
	CIRCLE	2--I was asked for my opinion 1--don't remember/no one asked opinions 0--I asked someone else/s opinion
	25	When you and your friends talk about village affairs, do you mainly listen to their ideas, or do you try to convince them of your ideas?
	CIRCLE	2--I mainly try to convince them. 1--we listen or try to convince equally 0--I mainly listen to their ideas
	26	Do you feel that your neighbors think of you as a good source of advice about village affairs?
	CIRCLE	2--YES 1--don't know 0--NO
	47	During the past six months have you told anyone about some new idea in farming?
	48	During the past two weeks has any person in the "village" come to you to ask your opinion's or advice about farming?
	49	Compared with your friends in the "village" are you more likely, or less likely, to be asked for advice about methods of farming?
	CIRCLE	2--more likely 1--about same 0--less likely
	50	Thinking back to your last discussion of farming, were you asked for your opinions about farming, or did you ask someone else for his opinions?
	CIRCLE	2--I was asked for my opinions 1--I don't remember/no one asked opinion 0--I asked someone else's opinions
	51	When you and your friends talk about farming, do you mainly listen to their ideas, or do you try to convince them of your ideas?
	CIRCLE	2--I mainly try to convince them 1--we listen or try to convince equally 0--I mainly listen to their ideas

VARIABLE	SCHEDULE QUESTION	QUESTION																											
	52	Do you feel that your neighbours think of you as a good source of advice about farming? CIRCLE 2--YES 1--don't know 0--NO																											
Knowledgi- biliby 11	30	Now let's talk about farming. Can you think of any of the new agricultural extension programs being sponsored by the government? a. _____ d. _____ b. _____ e. _____ c. _____ f. _____																											
	31	Of course, there are many agriculture programs; I have a list of some of them. As I name each program, just tell me if you have ever heard of it. USING CHECKLIST BELOW, READ EACH PROGRAM, CIRCLE LETTERS OF THOSE KNOWN. FOR EACH PROGRAM KNOWN, ASK: CIRCLE "YES" OR "NO" IF INFORMATION IS CORRECT a. What have you heard about...? b. How long ago was it, when you first heard about? c. How did you FIRST learn about...? WRITE YEAR WRITE IN SOURCE OF FIRST INFORMATION																											
		<table border="1"> <thead> <tr> <th>CIRCLE</th> <th>Has Correct Information</th> <th>Year heard of Program</th> </tr> </thead> <tbody> <tr> <td>(A) Aldrin dust</td> <td>yes no</td> <td>19__</td> </tr> <tr> <td>(B) Cassava (improved)</td> <td>yes no</td> <td>19__</td> </tr> <tr> <td>(C) Cocoa planting scheme</td> <td>yes no</td> <td>19__</td> </tr> <tr> <td>(D) Community plantations</td> <td>yes no</td> <td>19__</td> </tr> <tr> <td>(E) F.A.I.D. credit loans</td> <td>yes no</td> <td>19__</td> </tr> <tr> <td>(F) Farm settlements...</td> <td>yes no</td> <td>19__</td> </tr> <tr> <td>(G) Fertilizer programs</td> <td>yes no</td> <td>19__</td> </tr> <tr> <td>(H) Livestock (improved)</td> <td>yes no</td> <td>19__</td> </tr> </tbody> </table>	CIRCLE	Has Correct Information	Year heard of Program	(A) Aldrin dust	yes no	19__	(B) Cassava (improved)	yes no	19__	(C) Cocoa planting scheme	yes no	19__	(D) Community plantations	yes no	19__	(E) F.A.I.D. credit loans	yes no	19__	(F) Farm settlements...	yes no	19__	(G) Fertilizer programs	yes no	19__	(H) Livestock (improved)	yes no	19__
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(G) Fertilizer programs	yes no	19__																											
(H) Livestock (improved)	yes no	19__																											

VARIABLE	SCHEDULE QUESTION	QUESTION
----------	-------------------	----------

(I) NS-1 Maisé	yes	no	19__
(J) Oil palm (rebal.)			
	yes	no	19__
(K) Poultry (improved)	yes	no	19__
(L) Rice development	yes	no	19__
(M) Rubber planting	yes	no	19__
(N) Stork oil press	yes	no	19__
(O) Vegetable growing	yes	no	19__

12

4

Have you ever lived in a place outside this "village" for more than one year?
(PROB)

CIRCLE 1--YES ASK Where?
2--NO

CIRCLE APPLICABLE NUMBERS

	Within County	Outside County	Outside E. Region
--	---------------	----------------	-------------------

Village/section	0	3	6
town	1	4	7
city	2	5	8

10

In the past twelve months did you travel to any towns or cities away from this "village"?

CIRCLE 1--YES 0--NO

IF YES Did you travel to places in this area, in Eastern Nigeria, or outside Eastern Nigeria? (PROBE)

CIRCLE APPLICABLE NUMBERS

	Within County	Outside County	Outside E. Region
--	---------------	----------------	-------------------

Village/section	0	3	6
town	1	4	7
city	2	5	8

18

Would you like to live somewhere else outside this "village"?

CIRCLE 1--YES ASK Why? _____
0--NO _____

VARIABLE	SCHEDULE QUESTION	QUESTION
	73	Are you a member of any groups, societies, or organizations outside this "village"? CIRCLE 1--YES ASK Which group a. _____ 0--NO b. _____
13	38	Does anyone in your house receive a newspaper? CIRCLE 1--YES 0--NO
Mass Media Consumption 13	39	Can you read a newspaper to yourself? CIRCLE 1--YES 0--NO IF YES About how often do you read a newspaper? IF NO Do you ever have someone read a newspaper to you? CIRCLE 1--YES 0--NO IF YES About how often do you have someone read a newspaper to you? NEWSPAPER EXPOSURE 5--every day 2--twice/thrice a month 4--twice/thrice a week 3--once a week 1--once a month 0--less than once a month or never
	40	IF PERSON READS, ASK Have you ever read one of the government pamphlets or newsletters about agricultural extension programs? CIRCLE 1--YES 0--NO ASK EVERYONE
	41	Does anyone in this house own a radio? CIRCLE 1--YES 0--NO
	42	How often do you listen to the radio? RADIO EXPOSURE 5--every day 4--twice/thrice a week 3--once a week 2--twice/thrice a month 1--once a month 0--less than once a month or never
	43	IF PERSON EVER LISTENS TO RADIO, ASK Have you ever listened to radio programs about agricultural extension programs? CIRCLE 1--YES 0--NO

VARIABLE	SCHEDULE QUESTION	QUESTION
Group Participa- tion	12	Are you a member of any group, society, or organization in this village?
	CIRCEL	1--YES ASK Which groups (PROBE)
		0--NO a. _____
14		b. _____
		c. _____
		d. _____
		ASK IF HE HOLDS OFFICE IN ANY GROUPS, CIRCLE THESE GROUP LETTERS

APPENDIX B

ITEMS FOR INDEPENDENT VARIABLES INDEXES

VARIABLE	ITEMS	PRINCIPAL AXIX	ROTATED LOADING		
		LOADINGS	1	2	3
1. Life Cycle	Age	0.7735*	0.6960*	-0.3642	-----
	Marital Status	0.7290	0.1787	-0.9624	-----
	Number of Children	0.7492	0.8955*	-0.0652	-----
2. Economic Rationality	Reasons for Using				
	Money: First	0.5789	0.7117*	-0.1539	0.0552
	Second	0.6621	0.6994*	-0.0878	0.2218
	Third	0.6959	0.2667	-0.0014	0.7723
	Fourth	0.4711	-0.0923	-0.0088	0.8122
	Method of Acquiring Farm Land	-0.1849	-0.0436	0.5208	0.0228
	Number of Laborers Hired (Total)	-0.2170	0.1147	0.7399	-0.1522
	Number of Permanent Laborers Hired	-0.1433	-0.1010	0.6461	0.1531
	Reasons for working	0.2570	0.5690*	0.2385	0.1221

*

Scale items

VARIABLE	ITEMS	PRINCIPAL AXIS LOADINGS	ROTATED LOADINGS		
			1	2	3
3. Socio-Economic Style of Living	Wrist Watch	0.6963	0.7258*	0.0538	-0.0365
	Cushioned Chairs	0.7681	0.7369*	0.1609	-0.1603
	Camera	0.1994	0.2382	0.0800	0.1459
	Clock	0.7566	0.7676*	0.0690	-0.0992
	House	0.0974	0.1394	0.8473	-0.0600
	Radio	0.7212	0.7670*	0.0419	00.0003
	Cupboard	0.7904	0.7703*	0.1590	-0.1312
	Framed Photograph	0.7661	0.7502*	0.1087	-0.1557
	Laced Shoes	0.7463	0.7113*	0.0497	-0.2647
	1966 Calendar	0.7345	0.7494*	0.0048	-0.3171
	Trousers	0.6876	0.6365*	0.0403	-0.3133
	Drinking Tumblers	0.3660	0.2016	0.0889	-0.5565
	Eating Bread	0.2106	0.0314	0.0314	-0.6131
	Drinking Beer	0.1939	0.0263	0.0211	-0.5818
	Kind of House:				
	Size	0.1893	-0.0269	0.8355	-0.0268
	Construction	0.5289	0.3620	0.7238	-0.0508
	Roof	0.5412	0.3733	0.7156	-0.0641
	Bicycle	0.5631	0.4708	0.0300	-0.4227
	Iron Bed	0.7562	0.7616*	0.0887	-0.1004
	Kerosene Lamp	0.2809	0.1319	0.0162	-0.5479

* Scale items

VARIABLE	ITEMS	PRINCIPAL AXIS LOADING	ROTATED LOADING		3
			1	2	
4. Mass Media**	Newspaper Received in House	0.8132	0.8896*	0.2055	
	Leader Reads Agric. News- Letter	0.8312	0.8315*	0.3027	
	Radio Owned in House	0.7879	0.4669	00.6690*	
	Frequency of Radio Exposure	0.7350	0.1920	0.9137*	

**

Mass media as measured in the present study normally consists of two dimensions: newspaper or print and radio.

*

Scale items

VARIABLE	ITEMS	PRINCIPAL AXIS LOADINGS	ROTATED LOADINGS		
			1	2	3
5. Opinion- atedness	Success depends on luck	-0.1560	0.0213	-0.2294	0.5921
	Trust most people	0.1967	0.5826*	-0.2601	0.1218
	Epidemic is bad luck	0.0154	0.0096	0.0121	-0.0404
	People cannot be too careful	-0.5273	-0.0077	-0.7027	0.1890
	Ways of ancestors	0.1112	0.3175	-0.1365	0.4187
	Life is determined	-0.2988	-0.0139	-0.3898	0.5587
	People are interested	-0.0255	0.4379	-0.4287	-0.1271
	Mostly in themselves				
	To get good crops use				
	Machined, not weather	-0.2067	0.3375	-0.5821	0.0739
	Mind own Business	0.1652	0.3982	-0.1363	0.1853
	Life changes fast	-0.1112	0.3705	-0.4835	0.2882
	Win pool to better life	0.1631	0.6445*	-0.3609	-0.0434
	Trust and care for self	0.4849	0.5595*	0.1486	0.0302
	Man can plan future	0.2412	0.4456	-0.0636	0.5572
	Danger exists in joint ventures	-0.1794	0.2353	-0.4535	0.1466
	Changing times	0.4346	0.7269*	-0.0699	0.4332

VARIABLE	ITEMS	PRINCIPAL AXIS LOADINGS			
5. Opinion- atedness (Cont.)	Accept what comes	0.0567	0.5303*	-0.4012	-0.1118
	Friends gossip	0.4199	0.5738*	0.0484	-0.0168
	Plans cause unhappiness	0.0273	0.3336	-0.2638	0.2628
	Illness punishes	0.2197	0.3568	-0.0259	0.4076
	Love everybody	0.4882	0.7489*	-0.0444	-0.0709
	First village prob- lem	-0.3704	0.1258	-0.6117	0.0345
	Second village problem	-0.5032	0.0479	-0.7204	0.0364
	Third village problem	-0.5058	-0.0077	-0.6738	0.0059
	First source of disagreement	0.0762	0.0623	0.0462	0.4037
	Second source of disagreement	-0.0146	-0.0406	0.0167	0.3378

*

Scale items

VARIABLE	ITEM	PRINCIPAL AXIS LOADINGS	ROTATED LOADINGS		
			1	2	3
6. Cosmopolite- ness	Lived in village or section within county	0.9476	0.9489*	-0.0395	0.0086
	Lived in town within county	0.9543	0.9548*	-0.0439	-0.0040
	Lived in city within county	0.9783	0.9780	-0.0539	-0.0169
	Lived in village/ section outside county	0.9684	0.9684*	-0.0325	-0.0196
	Lived in town outside county	0.5179	0.4933	0.0271	-0.6853
	Lived in city outside county	0.2790	0.2461	0.2517	-0.0148
	Lived in village/ section outside E. region	0.9280	0.9281*	-0.0363	-0.0648
	Lived in city outside E. region	-0.1278	-0.1449	0.3074	-0.4177
	Travel to village within county in past 12 months	0.9358	0.9399*	-0.0358	0.0545
	Travel to town within county	0.6888	0.6815*	-0.0449	-9.1325
	Travel to city within county	0.9696	0.9700*	-0.0637	-0.0001
	Travel to village outside county	0.1357	0.1797	0.3933	0.6129
	Travel to town outside county	0.7394	0.7282*	-0.1066	-0.1803

VARIABLE	ITEMS	PRINCIPAL AXIS LOADINGS	ROTATED LOADINGS		
			1	2	3
6. Cosmopolite- ness (cont.)	Travel to city outside county	0.5461	0.5405*	0.2931	-0.2310
	Travel to village outside E. region	0.9696	0.9700*	-0.0637	-0.0001
	Travel to town outside E. region	0.9009	0.9041	-0.0022	0.0269
	Membership in one formal group outside village	-0.0918	-0.0798	0.6981	-0.0595
	Membership in second formal group	-0.0308	-0.0183	0.6865	-0.0484

*

Scale items

VARIABLE	ITEMS	PRINCIPAL AXIS LOADINGS	ROTATED FACTOR LOADINGS		
			1	2	3
7. Formal group participa- tion	Membership in most important village group	0.8284	0.9320*	0.0720	
	Participation in decision-making	0.8325	0.6320*	0.5596	
	Number of village positions held by leader	0.8695	0.9354*	0.1441	
	Number of village groups leader belongs to	0.5125	0.1601	0.7107	
	Number of village offices held by leader	0.4612	0.0438	0.8000	

*

Scale items

APPENDIX C

DISTRIBUTION OF DEMOGRAPHIC CHARACTERISTIC FOR
947 EASTERN NIGERIAN LEADERS AND INNOVATORS*

VARIABLE	CATEGORIES	Per Cent
1. Age	Under 29	11.52
	30-39	20.57
	40-49	26.72
	50-59	18.88
	60-69	13.40
	70-79	4.60
	80-89	2.80
	90-99 and over	1.10
	Total Percent	99.41
2. Marital Status	Single	7.20
	Married	92.80
	Total Percent	100.00
3. Number of Children	None	9.40
	One	4.80
	2- 4	28.20
	5- 7	31.60
	8-10	15.10
	11-15	6.80
	16-20	2.50
	Over 20	1.60
	Total Percent	100.00
4. Education	Never attended School	39.00
	Primary School (uncompleted)	31.00
	Primary School (completed)	21.00
	Secondary School (uncompleted)	2.00
	Secondary School (completed)	2.00
	Post Secondary or University (uncompleted)	5.00
	University Completed	0.00
	Total Percent:	100.00

* This sample includes 88 innovators, 25 veterans and 834 leaders.

VARIABLE	CATEGORIES	PER CENT
5. Innovative- ness	Number of Programs Joined	
	0	53.00
	1	16.60
	2	13.20
	3	7.60
	4	5.70
	5	2.20
	6	1.40
	7	0.20
	8	0.10
Total Percent		100.00
6. Economic Rationality	Working for Peace of Mind	60.30
	Working for Respect	15.70
	Working to be Rich	24.00
	Total Percent	100.00
	Use Money for Personal-Good	27.30
	Use Money Mainly for Family-Good	40.50
	Use Money for Benefit of People Outside Family and Village	31.80
	Don't Know	0.40
	Total Percent	100.00
	Number of Laborers Employed	
Permanent	0	89.40
	1	3.00
	2-5	6.00
	6-9	0.90
	10-32	0.70
	Total Percent	100.00
Temporary	0	14.40
	Some	85.64
	Total Percent	100.00

VARIABLE	CATEGORIES		PER CENT		
	Method of Land Acquisition				
	From Friend or Family (A)		64.70		
	By Rent, Pledge, Lease (B)		7.20		
	By Purchase (C)		7.40		
	Common or School Land		2.90		
	Combination of A, B, C		16.60		
	Total Percent		100.00		
Opinionated- ness	Kind of Village Problems		None	DK	Mentioned
	First	Problem	0.60	0.50	98.90
	Second	Problem	4.10	0.40	95.50
	Third	Problem	10.80	0.50	88.70
	Total Percents		100.00		
	Average		5.20	0.50	94.30
	Disagreements in Village		None	DK	Mentioned
	First Disagreement		7.20	0.80	92.00
	Second Disagreemetn		55.30	1.00	43.60
	Total Percents		100.00		
Average		31.20	1.00	67.80	
	Belief Structure Showing Attitude and Feeling				
		DA	DK	A	
	Luck	17.70	0.50	81.80	
	Trust	58.00	1.30	40.70	
	Anomie	80.50	1.10	18.40	
	Fatalism	63.50	1.30	35.20	
	Total Percents		100.00		
	D.A.	* Disagree			
	D.K.	= Don't Know			
	A	= Agree			
Agricultural Knowledgibility	No. of Programs Mentioned (Aided Recall)				
	1		5.00		
	2		9.20		
	3		16.60		
	4		16.30		
	5		16.20		
	6		19.50		
	7		4.00		
	8		1.50		
	9		0.50		
	Total Per Cent		88.80		

VARIABLE	CATEGORIES	PER CENT		
Awareness of Programs (Unaided Recall)				
		Aware %	Incorrect Knowledge %	Correct %
	Aldrin	51.00	6.70	42.30
	Cassava	48.20	17.70	34.10
	Cocoa	14.50	43.10	42.40
	Community Planation	45.50	13.40	41.10
	FAID Credits and Loans	54.50	13.10	32.40
	FARM Settlements	43.20	17.10	39.70
	Fertilizer	11.70	7.40	80.90
	Livestock	39.30	18.70	42.00
	NS-1 Maize	31.80	14.70	53.54
	Oil Palm	5.20	19.40	75.40
	Poultry	15.70	21.30	63.00
	Rice	39.70	23.80	36.50
	Stock Oil Press	76.10	7.00	16.90
	Vegetable Growing	52.40	14.60	33.00
Cosmpolite- ness	Would not leave village		74.30	
	Would leave for:			
	Better Jobs		12.30	
	Better Land		0.10	
	Education		1.80	
	New Ideas & Environment		4.70	
	Dissatisfaction with village amenities		1.30	
	Dissatisfaction with living conditions		1.50	
	Job transfer		4.10	
		1st Mention	2nd Mention	
Extra Village				
Group Memberships:				
None	53.50	82.20		
Educational and Professional	5.10	3.40		
Agricultural Co- operatives	4.90	1.10		
Improvement Associa- tion	18.70	6.20		
Others	18.10	7.10		

VARIABLE	CATEGORIES						PER CENT		
	COUNTY			REGION			OUTSIDE REGION		
	Village	Towp.	City	Village	Town	City	Village	Town	City
Lived in %	8.8	4.5	0.2	12.0	23.3	19.8	1.00	6.6	11.7
Travelled to %	11.5	8.7	0.0	7.7	36.0	44.0	0.0	1.7	5.3
Mass Media Consumption							No	Yes	(100%)
	Received Newspaper in House						53.50	46.40	
	Reading Frequency:								
	Less Than once a month							4.70	
	Once a month							3.00	
	Twice a month							3.90	
	Once a week							4.20	
	Twice a week							8.20	
	Every day							21.20	
	Someone reads newspaper to respondent						42.90	11.90	
	Ability to read newspaper						54.80	45.20	
	Exposure to Agricultural Newsletter						16.30	28.90	
	Radio ownership in house						59.50	40.60	
	Radio Exposure Frequency								
	Less than once a month							31.50*	
	Once a month							3.40*	
	Twice a month							3.90	
	Once a week							8.60	
	Twice a week							13.40	
	Every day							39.10	
	Not applicable							0.20	
	Exposure to Agricultural Radio Programs						36.90	63.20	
Social Participation	Hold Offices in Groups								
	1st Group						59.00	40.10	
	Second Group						72.50	27.50	
	Third Group						87.90	12.10	
	Fourth Group						95.00	5.00	
	Total Number of Offices Held						46.90		
	One							31.70	
	Two							13.10	
	Three							6.30	
	Four							2.00	

* Categories with doubtful exposure because of the low rate of contact with

22

of

VARIABLE	CATEGORIES	PER CENT		
Self Perceived Opinion Leadership	VILLAGE AFFAIRS:	NO	YES	DK
	Told someone new idea	32.2	67.8	14.4
	Asked for opinion	49.3	50.7	
	Likelihood of being asked	13.1	72.5	14.4
	Role in discussion was;			
	Asking someone	22.7		
	Asked by someone		57.4	19.9
	Listen to others	10.2		
	Others Listen		36.0	53.8
	Source of Advice	3.8	83.6	12.8
	VILLAGE FARMING:			
	Told someone new idea	47.5	52.5	
	Asked for opinions	62.4	37.6	
	Likely to be asked	35.8	53.6	10.6
	Asked in discussion	28.8	42.3	28.8
	Others Listen	23.0	34.9	42.1
	Good source of Advice	16.0	66.8	17.2
	POSITIONS HELD IN VILLAGE			
	None		27.2	
	One		46.0	
	Two		18.9	
	Three		7.7	
	Four		0.0	
	Five		0.1	

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