# DISPUTE SETTLEMENT IN TANZANIA:

# A MODEL OF SYSTEM SUPPORT THROUGH THE COMMUNICATION OF LEGITIMACY

By

Cedric C. Clark

A THESIS

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

DOCTOR OF PHILOSOPHY

Department of Communication

1968

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

Director of Thesis

Guidance Committee: _____, Chairman

_____

_____

_____

ABSTRACT

DISPUTE SETTLEMENT IN TANZANIA:
A MODEL OF SYSTEM SUPPORT THROUGH THE COMMUNICATION
OF LEGITIMACY

by Cedric C. Clark

The thesis advanced here is that social change can be viewed as a process through which information is transmitted from one system (a traditional institution) to another system (a modern institution). The type of information studied is that which David Easton terms "supports." Using the systems analysis framework developed by Easton, attention is focussed on the decision-making behavior of a sample of East African (Tanzanian) villagers. The behavioral phenomenon examined is the process of dispute settlement. The villager's decision to have his personal disputes settled in a modern court system, rather than in a traditional court system, is viewed as the communication of a certain kind of support, namely legitimacy, into one system as opposed to the other. The representatives of the two court systems are, in turn, viewed as participating in an activity analogous to a zero-sum game; i.e., both are trying to win the support of the individual villager through the process of settling his disputes, and what one system wins (in terms of accorded legitimacy) the other loses. A two stage computer model is developed as a theoretical representation of at least parts of the over-all communication processes.

The first stage of the model examines the input variable (a civil dispute) in relation to certain transformation variables characterizing the individual decision-maker. Sixty-two propositions (written in FORTRAN computer language) are constructed to represent the relationship between these two variables. The weights of the propositions are summated and preliminary results are obtained with respect to individual predispositions towards the modern vis-a-vis the traditional court systems. These results are then used to classify villagers into three basic types; (1) those pre-disposed towards the modern court system; (2) those pre-disposed towards the traditional court systems; and (3) those non-disposed. Using this classification, a second computer program is presented in an attempt to illustrate the interaction processes and social influence the villager goes through prior to making a final decision.

The results of the first stage and the second stage show an accuracy level of slightly less than sixty percent in the prediction of actual dispute settlement decisions. Analysis of individual tribal groupings show the model predicting differentially with accuracy levels ranging from a low of 35% to a high of 75%. The conceptions presented in the thesis are discussed in terms of their implications for communication research in developing nations.

## ACKNOWLEDGMENTS

My grateful appreciation is extended to members of my guidance committee: Dr. Hideya Kumata, Dr. Gerald Miller, Dr. Norman Miller, Dr. Everett Rogers, and Dr. Lawrence Sarbaugh. Special thanks go to Professor Norman Miller for the use of data collected by him and to the Carnegie Corporation for the support of the research upon which the data is based.

Grateful appreciation is also extended to Dr. Mac Swartz for introducing me to his own as well as to David Easton's ideas. The influence of both professor Easton and Swartz permeate the better parts of this thesis.

I would like to thank the College of Communication Arts for its generous allocation of computer time and for its unknown tolerance of those expensive programming errors common to computer novices.

Appreciation is also extended to Mr. T. C. Hutchinson for introducing me to the field of communication some eleven years ago.

Finally, I would like to express my gratitude for my wife's continual intellectual and emotional support.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

LIST OF FLOWCHARTS

LIST OF APPENDICES

# INTRODUCTION

This thesis presents a view of political modernization which focuses on the information-processing and decision-making behavior of individual citizens. The general class of phenomena under study are those behavioral situations in which the individual is faced with a choice of whether or not to act so as to enhance the legitimacy of a particular element or structure of the political system to which he belongs.

The basic concern here, then, is with individuals in those societies which already possess elements or structures to which it is at least theoretically possible for individual members to accord legitimacy. A critical assumption is that there already exists, at least in some societies, and at least in some embryonic form, all the necessary elements or structures commonly associated with a "modern" political system and that what is lacking is sufficient individual citizen support for these structures.

If this assumption is accepted, an important question arises: "What factor or factors are responsible for the lack of support accorded to these embryonic forms of modern political and social structures?" One major factor is the existence of already fully-developed traditional counterparts to the modern structures. By

"counterpart" is meant a structure which has historically performed the same general function for which the modern structure has been newly created. It is clear that, from the point of view of the individual citizen, there is no reason to use, or "accord legitimacy to," new structures when, ceteris paribus, the older, traditional structures serve just as well.

Such factors draw attention to a somewhat different conception of "modernization" -- a conception which emphasizes the relative amounts of support or legitimacy being accorded to modern vis-a-vis traditional structures. Such a conception forces us to look at the individual because it is within the individual that major support resources, which are needed by the political system, lie.

The next question, then, is how might one determine from individual behavior whether or not modern political structures are being supported. It is the thesis here that such information is best obtainable from an examination of those specific situations in which the individual is called upon to, as it were, "reveal his sympathies" in a decision-making context. That is to say, individual support for either the traditional or modern political structure can best be seen when the individual has a "problem" (broadly defined) which is capable of solution in either sphere and he selects one instead of the other.

It should be noted that the word "structures" has been used in a broad enough sense so as to include the personalities occupying

the role positions comprising the structure. This is important because, from the point of view of the people occupying the roles defining the modern and traditional structure (e.g., a civil servant vs. a village elder), the critical decision situations are analogous to a zero-sum game.

The analogy of a zero-sum game assumes that the two structures (or role occupants) are aware of each other's activities. That is to say, the analogy holds in the case, say, where an Eskimo Shaman (medicine man) and a university-trained physician are actively soliciting patients in the same village; it is unlikely in this case that they would be unaware of each other's successes and failures. The critical decision facing the villager is whether to have his illness treated by the Shaman (who represents the traditional structure) or by the physician (who represents the modern structure). The zero-sum game analogy is appropriate in this context because what one structure gains (i.e., the support of a patient), the other loses. It should be immediately recognized, however, that not in every case is the competition between the structures conscious in nature. Nor, it should be added, is the game zero-sum in every case. This is particularly true in those instances where the individual may, after suffering unpleasant experiences with one structure, give his support to the competing structure. The discussion, thus far, has assumed a constant temporal value.

The gaming analogy loses its character also when one moves from a consideration of competing structures back to the original

focus on the decision-making behavior of individuals who are forced to deal with these structures. (Unless, of course, the individual is viewed as playing a "game against nature" -- an interesting, though perhaps unwieldy conception in the present context.) A better analogy in this latter case would be of a rat running through a T-maze. That is to say, the individual has to choose between two alternative paths, each of which has its own unique characteristics. The questions of classical decision theory become relevant; e.g., What information sources are used by the individual in the weighing of the two alternatives? What value does he associate with each outcome? How probable are the outcomes? Etc. With reference to the medical example given earlier, important questions would include: What will the individual gain by having his illness treated by the physician? Is this gain worth it in terms of the social pressures exerted on behalf of the unchosen alternative? What aspects of the situation does individual A consider important in arriving at a decision which individual B considers irrelevant? What kinds of communication behavior are associated with the information seeking prior to actual decision-making? These are some of the types of questions to which this thesis is addressed.

The first chapter of the thesis presents the general conceptual scheme which guided the research endeavor. Ideas gleamed from the disciplines of political science, social psychology, anthropology, and General Systems Theory are brought in relation

to the specific problem of generating decisions supportive of modern institutions. Chapter II discusses, in more detail, the various cultural areas of the world in which the problem is common. The purpose of this chapter is to give the reader an indication of the generality of the problem and, at the same time, illustrate it more specifically by reference to particular societies. Chapter III describes the methodology employed in the study. In this chapter a "Disposition-Interaction" computer model, consisting of two basic parts, is described in considerable detail. The results of the first part of the model (Disposition phase) are presented in Chapters IV and Chapter V continues the discussion of the Disposition-Interaction computer model by focussing on the second part (Interaction phase) of the model. The results for this second phase are described in the same chapter. Chapter VI discusses and summarizes the results and implications of the study.

## CHAPTER I

## THEORETICAL FRAMEWORK

The work of David Easton (1953, 1957, 1959, 1965a, 1965b) provided the overall conceptual scheme for the ideas presented in this thesis. Easton uses what he terms a "systems analysis approach" to the study of political behavior. A political system, according to Easton, is "a set of interactions, abstracted from the totality of social behavior, through which values are authoritatively allocated for a society." (1965b; pg. 57) The units of a political system are political actions and its boundary is defined by "all those actions more or less directly related to the making of binding decisions for a society." The inputs to the system consist fundamentally of two types: demands and supports. (See Figure 1)

Demands are those wants, expectations, preferences, etc. which require some special organized effort on the part of society to settle. These demands may originate either internally (within the system) or externally (in the system environment). In either case, Easton suggests that "systematic research would require us to address ourselves to several key questions" with regard to these demands: (1) How do demands arise and assume their particular character in a society? (2) How are demands transformed into issues? (3) What is the

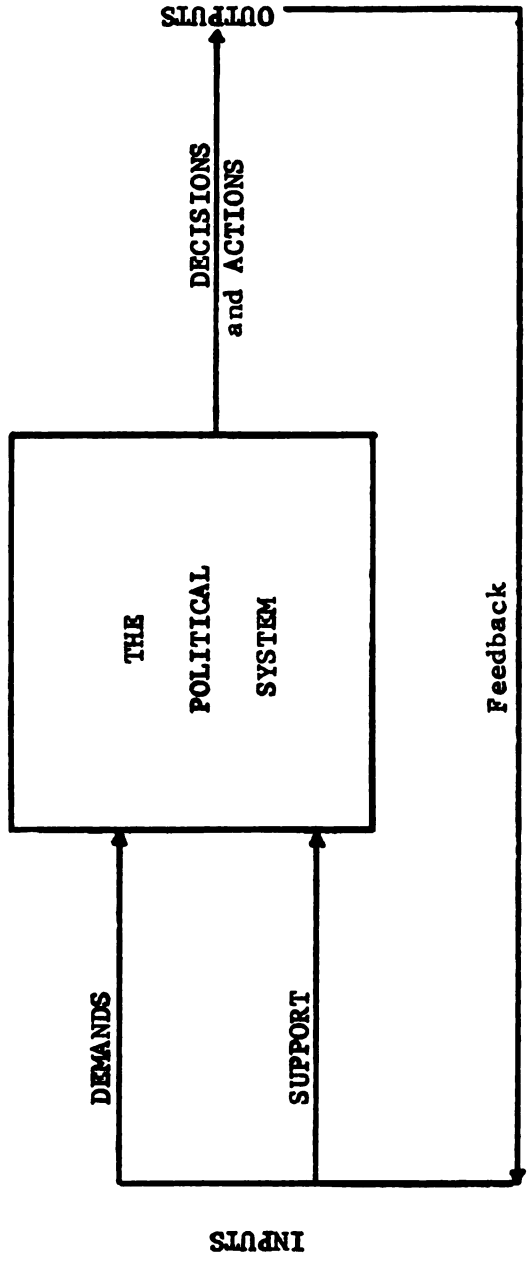



Figure 1. Easton's Model of a Political System

relationship between a demand and the location of its initiators or supporters in the power structures? (4) What is the importance of secrecy (as opposed to publicity) in presenting demands? (5) How important is timing, the possession of political skills, access to channels of communication, etc. for the successful transformation of demands?

The second type of input, support, is defined as "energy in the form of actions or orientations" which promote or resist a political system. Without such support, according to Easton, demands could not be satisfied or conflicts in goals composed; i.e., if demands are to be acted upon, those responsible for such action have to be able to count on support from others in the system. What, specifically, does this notion of support involve? Easton says:

> "We can say that A supports B either when A acts on behalf of or when he orients himself favorably toward B's goals, interests, and actions. Supportive behavior may thus be one of two kinds. It may consist of actions promoting the goals, interests, and actions of another person ... (or) may involve ... a deep-seated set of attitudes or predispositions, or a readiness to act on behalf of some other person. (1959; pg. 212)

It should be noted that it was the second of these two types of supportive behavior which describes the decision-making behavior which was discussed on an earlier page.

Easton goes on to discuss three domains of support -- i.e., objects with regard to which supportive behavior is realized: (1) the political community (support to notions of "national unity" or to a feeling of "we-ness"); (2) the regime (support to the constitutional principles upon which legitimacy and authority depend); and (3) the government itself. Support in some scope and in some quantity, is necessary if the demands made upon the system are to be satisfied.

Some key questions which Easton raises are: "How do systems manage to maintain a steady flow of support?" and "How much support needs to be put into a system and how many of its members need to contribute such support if the system is to be able to do the job of converting demands to decisions?" With regard to the first of these questions -- the means by which societies generate support for a political system -- Easton suggests two ways: (1) through outputs that meet the demands of societal members (particularly the "politically relevant" members); and (2) through the process of politicization. Systems outputs are, of course, the decisions and actions taken with regard to the allocation of values. These decisions are fed back to the supporters of the system and either strengthen or weaken ties to the system (cf. Figure 1). While, according to Easton, it is not necessary for a system to satisfy all the demands of all the members, there must nevertheless be maintained some optimal level of satisfaction if support is to be forthcoming. The reason it is not

imperative for those in control of the allocation of values to meet demands on them in a quid pro quo fashion is because of the process of politicization ("political socialization"). It is through this process that a system builds up a reserve of support which can be drawn upon in times of crisis (e.g., "Remember the Alamo!").

The relevance of this extended discussion of Easton's ideas to the ideas presented earlier in this paper is perhaps apparent. In fact, Easton himself leads directly to these considerations when he suggests possibilities for research within his systems framework:

> "...we should examine the following variables: first, the nature of the inputs; second, the variable conditions under which they will constitute a stressful disturbance on the system; third, the environmental and system conditions that generate such stressful conditions; fourth, the typical ways in which systems have sought to cope with stress; fifth, the role of information feedback; and finally, sixth, the part that outputs play in these conversion and coping processes."
> (1965a; pg. 132)

The purpose of the thesis here is not so much to focus on any one or a few of the above mentioned variables but, rather, to view them all in relation to a specific phenomenon of political behavior: the making of individual decisions. Before elaborating on this, however, it is necessary to consider a somewhat complicating, yet crucial, factor. This factor involves the recognition that when we talk about the political system of a developing society, we are quite often not talking about a single political system, but about two co-existing political systems -- one directed towards the allocation

of modern-type values and the other directed towards the allocation of traditional-type values. Easton was aware of this when he wrote:

> "...one of the interesting aspects of ... African societies under the impact of European culture is the disappearance of older kinds of political groups and the conflict that occurs between these traditional groups and the new ones that are seeking entry into the political market place." (159; pg. 234)

It is precisely this situation which is the focus of the present thesis. One can, possibly, without doing any injustice to the system concept, consider the two groups which Easton talks about above as political subsystems comprising a particular political system. The conflict which he mentions, then, may be seen as a kind of game situation played by the two political subsystems (cf. the discussion on page one). The payoffs are in terms of accorded legitimacy which is defined here as an important type of system support in developing countries. That is say, the survival of either the modern subsystem or the traditional subsystem depends to a large extent on this type of input into the system. It is obvious that in some situations a given individual (a villager say) is able to accord legitimacy (give support) to both modern and traditional subsystems more or less simultaneously. An example of this kind of situation would be the circumstances surrounding the naming of a new-born child. The choice situation here concerns whether one should go through the procedures associated with the Christian Church (i.e., Baptismal or Christening) or with those associated with traditional practices (i.e., a naming

ceremony). In this case, the categories of choice may not be mutually exclusive; i.e., the villager can perhaps first have his child named in a traditional naming ceremony and then take it to be Baptized. This is what might be likened to a non-zero-sum games played between the traditional and modern subsystem of the religious system. Neither system gains at the total expense of the other; both have been given support in terms of accorded legitimacy.

Note, however, that given some environmental change (e.g., a washed-out road leading to the Christian Mission), one subsystem may begin to gain at the expense of the other -- the game then ceases to be non-zero-sum. Note further that if the time factor ceases to be unimportant and the first choice is seen as an indication of system priority, then the nature of the game changes considerably.

It should be noted, finally, that the nature of the game may vary from society to society even though the situation itself is identical. In other words, the traditional and modern religious subsystems may be competing for naming privileges in Addis Ababa as well as in Dar es Salaam, but it is unlikely that the payoffs (in support units) are identical in each case. That this fact offers itself as a departure point for cross-cultural comparative research is considered as a main contribution of this thesis.

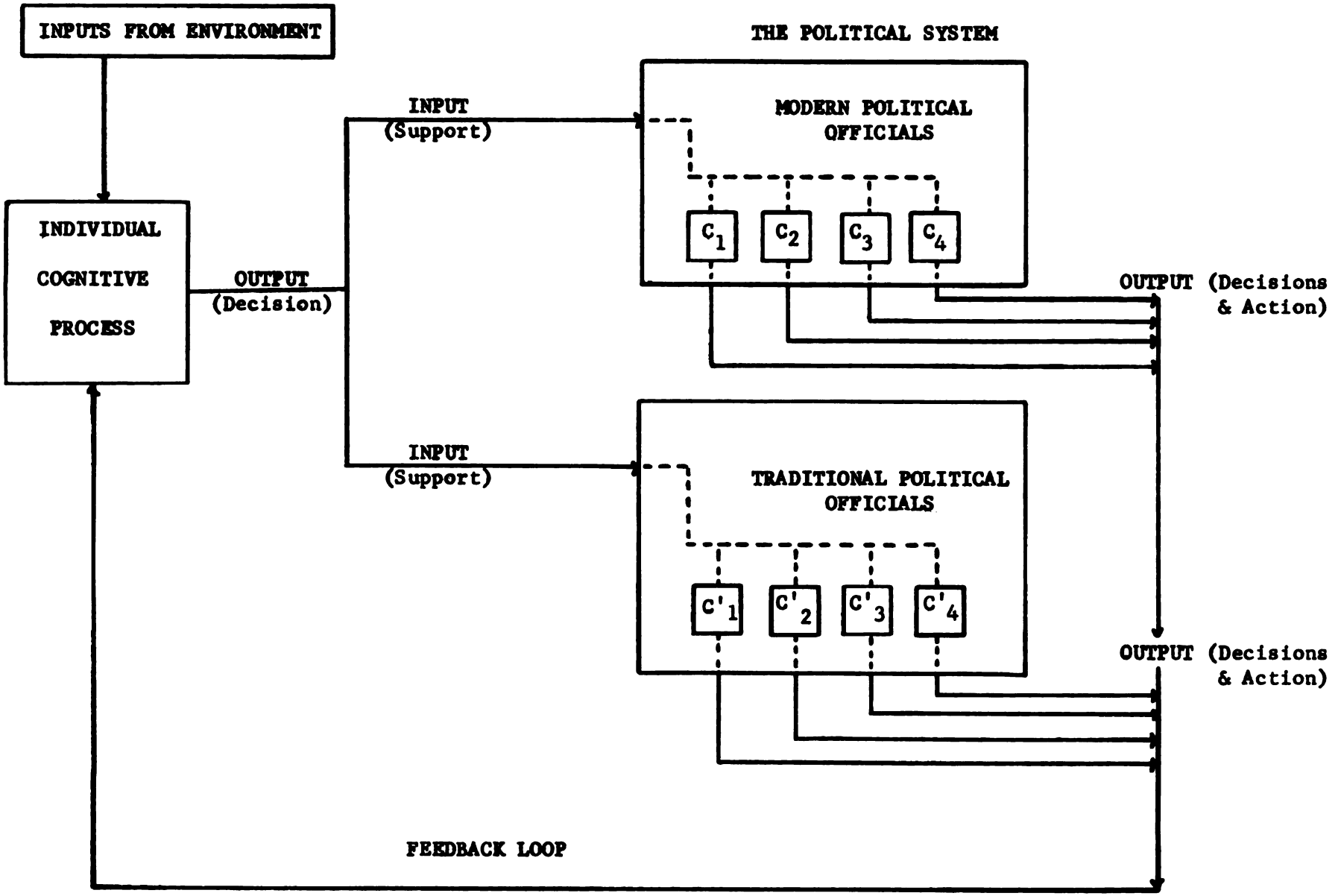
Despite the above emphasis on the game-type situation confronting the two subsystems, it should be recognized that, in the final analysis,

it is the individual who communicates support to one or the other structures. In a sense, the focus in the immediately preceding paragraphs has been on the elicitation of support, rather than on the individual generation of it. The two approaches are, however, complementary and not contradictory. Perhaps at this point in a discussion of conceptual frameworks, it would be beneficial to introduce an extension of Easton's original diagram which was presented earlier (Figure 1).

Figure 2 illustrates the situation as it has been presented in preceding paragraphs. As indicated previously, the chief focus of the present study is on the individual -- his information processing and decision-making behavior. In the model diagrammed in Figure 2, the individual who is faced with the type of choice situation discussed earlier (e.g., of whether or not to give support to the modern vis-a-vis the traditional structures) begins the cognitive process of thinking and then arrives at a decision. His decision is interpreted here as the communication of legitimacy or support to one subsystem or the other (i.e., the game is zero-sum). To maintain a consistent level of analysis, these opposing subsystems are pictured in the model as (political) officials or, equivalently, as personality systems. The numbered C's and C primes are components of the modern and traditional political system, respectively.

If, for example, the political system is so defined as to include medical decisions, $C_1$ and $C^1_1$ would refer to a university-

Figure 2. The Generation of Political Support in Transitional Societies



trained physician and a Shaman, respectively. Similarly, $C_2$ and $C^1_2$ might refer to a situation involving a decision of whether to send one's child to a Government school or to a Koranic school, respectively, et sic de ceteris. The inclusion of such a choice situation within the political system is, again, primarily a function of how broadly one wishes to define "political."

Returning to Figure 2, the lines leading from the C's represent the flow of output decisions which are then fed back to the individual choice-maker who incorporates this information into his cognitive structure and uses it to influence his subsequent decision-making activity. If, to take a specific example, a villager's child dies after having been taken to the physician, the chances are greater that the villager will take his next sick child to the Shaman, ceteris paribus.

The ceteris paribus nature of the model is certain to bother some researchers, especially those working within disciplines which focus directly on the specific choice situation under examination; e.g., educators and physicians would undoubtedly find the examples used much too simplified. To at least some extent, cognizance must be taken of these concerns and the assumptions of the model made explicit with regard to what things are considered "equal." Nevertheless, to anticipate some subsequent discussion, the primary concern will be the building of a general model -- one which will be applicable to many societies, if not to many types of decision situations within them. By a general model in this context is meant "a model the structure of

which is substantially invariant over the class of organizations for which it is designed." (March, 1962; pg. 203)

In order to clarify preceding discussion and perhaps elaborate upon the essential ideas presented there, the final section of this chapter will examine a type of decision-forcing situation which is (a) unquestionably political, (b) widely reported in social science literature, (c) susceptible to empirical investigation, and (d) whose consequences for the development of viable political institutions are profound.

## Dispute Settlement as an Indicant of Political Support

By way of introduction I will quote somewhat extensively from an article written by Victor F. Ayoub concerning conflict resolution in Lebanon. Ayoub begins his discussion by emphasizing the fact that one of the major problems facing new nations is the lack of a sense of national identity and internal hegemony. This situation, he continues, is illustrated by the simultaneous existence of two types of administrative units: those which are based on principles of territorial integrity (e.g., administrative districts) and those which are based on principles of social relationships (e.g., kinship). Ayoub's observations are poignant:

> "Legal action (that is, legislative, adjudicative and enforcement behavior) is associated with each type of organization. In operation, although not necessarily in purpose, such action may be markedly different within the less inclusive structures (i.e., "traditional") from what it is when linked with the more inclusive (i.e., "modern") one embodied in the governing institutions of the state. A choice, at least in the area of adjudication, becomes possible. Specifically, a villager disputing with another may find himself in a position which permits him to choose between resorting to the courts associated with the central administration or accepting the adjudicating procedures consistent with the indigenous social structure." (Ayoub, 1965; pg. 11)

To translate and summarize the situation in terms of the conceptual scheme introduced earlier: The occurrence of a "dispute" (which we might term a civil case) offers to the villager a choice of two legal subsystems into which he may communicate support by the mere taking of the case for settlement. Not every dispute is, of course, capable of being settled in both types of courts; but this defines not an unreal system but research strategy.

The situation, although described simply enough, is immensely complicated for the individuals so affected. This is particularly true in those situations in which the competition between societal segments is so sharp as to result in consequences for the individuals that bear little relevance to the original problem. If, for example, the villager fails to take his dispute to the traditional headman for settlement, he may, in some societies, find himself ostracized from the community; if, on the other hand, he fails to take his case

to the modern court, he may find that his tax assessment has been increased for not doing so. These are just a few examples of the rewards and punishments capable of being manipulated by the competing political officials. The precise nature of these, and their relative strengths will, of course, vary from society to society. The effect of the individual's choice is, however, in every case the same: he either supports or does not support a particular political subsystem.

While it may be true that mere dispute settlement constitutes only one type of support inputs into the subsystem, it is important to focus on it for no other reason than that the villagers themselves consider such a decision of utmost significance. To suggest, however, that the reasons the villager has for thinking his disputes important are identical to those of the researcher examining the situation is to impute to the villager a degree of political sophistication only at the cost of committing "the logical fallacy." Villagers in developing societies consider their disputes important for many of the same reasons we do our own: they are time-consuming, costly, and threatening to the general social order. In neither case, generally, is the individual always conscious of communicating legitimacy to any particular system, though this fact does not, of course, mitigate the importance of the decision.

Summary of Chapter I

Using a modified version of the conceptual framework developed by David Easton, an attempt has been made to isolate a particular instance of political behavior and to define the consequences of that behavior in terms of support for one political subsystem as opposed to another. The political behavior in question concerns the choice situation facing villagers in transitional societies in which two political structures -- one tradition-oriented and one modern-oriented -- exist. "Modernization" has been viewed in terms of a summated measure of support units which have been input into the modern as opposed to the traditional subsystem.

An important example of potential support units was seen in the case of dispute settlement. In such situations, the individual villager is often faced with a choice of whether to take his dispute for settlement to the traditional officials or to the modern officials. The consequence of this choice is thus viewed as "accorded legitimacy" or political support for one subsystem or another. What emerges as significant, then, from a research point of view, are the environmental and individual cognitive factors which influence decision making. Of particular significance in this respect are the communication habits of the individuals involved.

The general purposes of this thesis is to construct a computer model of the various predispositional and communication factors which influence the decision outcome. Before proceeding in this direction

however, it is worthwhile to examine the extent to which the problem, as outlined in the present chapter, is found throughout the world. This is the purpose of the succeeding chapter.

## CHAPTER II

## REPRESENTATIVE SOCIETAL EXAMPLES

The purpose of this chapter is to provide information on a representative, though hardly exhaustive, group of societies whose political systems offer to the individual two alternatives (one traditional and one modern) for the settlement of personal disputes. Through such an examination, hopefully, it will be possible to arrive at some tentative propositions concerning the variables which propel individuals in one direction or another.

### Liberia

James L. Gibbs (1963) describes a situation in this West African country in which an individual villager has the choice of whether to have disputes settled in "official courts" or in "unofficial courts." The latter, called "moots," are popular, according to Gibbs, because of their "therapeutic" effect. This therapeutic advantage accruing to the unofficial (traditional) courts is a concomitant of the following characteristics of the moot: (1) there is a more thorough ventilation of issues; (2) the robes, writs, messengers, and other symbols of power which intimidate and inhibit the parties in the courtroom by reminding them of the physical force which underlies the procedures are absent;

(3) the strict regulation of conduct is absent in the unofficial moots; (4) the hearing takes place soon after the trouble has occurred; (5) the hearing takes place in familiar surroundings; (6) there is no unilaterial ascription of blame to a single party; (7) relatively light sanctions are imposed (thus precluding grounds for a new grudge against the other party); and (b) the parties drink together to symbolize restored solidarity.

Unfortunately, Gibbs does not elucidate the conflict nature of the situation by citing characteristics of the official (i.e., "modern") court system which might conceivably offset the advantages of the traditional moot. Nor is it possible, from his data alone, to discern just how many of the above named characteristics tend to be peculiar to the Liberian culture, and how many might be generalizable to similar situations existing in other cultures. One of the tasks of the present chapter is to attempt to fill just this void.

Lebanon

Ayoub (1965), who was quoted earlier (page 17), is not as explicit as Gibbs with respect to the characteristics of the traditional-oriented court system. He does, however, point out that the primary aim of the Lebanese traditional court system (the "Waasta") is "reconciliation through compromise." According to Ayoub, an "individual who resorts to the (modern) court does not solve" the problem of social relationships between the disputants. In fact, one of the Ayoub's major points is that the shift in support from a

traditional legal system to a modern legal system reflects a corresponding shift from a kinship basis of organization to one based on territorial principles. This notion will be discussed in greater detail subsequently.

From the two examples thus far considered, it seems evident that the maintenance of social relationships is a crucial determinant of whether or not one will have his dispute settled by the traditional court system; i.e., if a person wants to avoid disrupture of the existent social relationships, he will, ceteris paribus, take the dispute to the traditional courts. This factor, of course, operates primarily in those instances in which there is a kin relationship between the disputants; needless to say, such situations do not characterize all personal disputes.

Uganda

Fred G. Burke (1966) is one of the few scholars who has been keenly aware of the problem under examination and who has related it directly to the growth of political institutions:

> "The tenacity with which people of the multi-tribal districts cling to their traditional parochial units of authority and responsibility is one of the major problems facing the development of modern local government...as communication improves, as people move about in search of work in a diversified economy, and as multiple loyalties based upon

> specialized roles and associations evolve, it is probable that local parochialism, as reflected in the legitimacy awarded the multiple of traditional units of authority, will gradually decline." (Burke, 1964; pg. 229)

While Burke does not focus directly on the choice situation facing the villager in dispute settlement, he does highlight the more general aspects of the problem. His observations in the central African republic of Uganda are quite similar, at least in crucial respects, to those made by Ayoub and Gibbs. Specifically, Burke notes that in traditional court systems, "...sanctions are diffuse and are designed to compensate rather than to award or deprive ... (and) forms of coercion are flexible, informal, and situational."

Providing more specific information regarding dispute settlement in Uganda, John Beattie (1960) notes also that some disputes:

> "...may be settled in one of two ways. The case may be taken to the nearest official native court of the first instance for hearing; these are the subchiefs' courts, established by the Protectorate legislation and having powers to fine, imprison, and award compensation ... (or) the disputes ... may, if they are not very serious, be dealt with by an informal local tribunal or "court" of neighbors..." (Beattie, 1960; pg. 67)

The qualification made by Beattie -- that the seriousness of the dispute is an important consideration -- should not be ignored. The discussion thus far has assumed that the dispute under consideration is one which the individual perceives as having two avenues of redress.

Consequently, the relatively very serious disputes (e.g., homicide) and the relatively very trivial (e.g., failure to visit one's father periodically) are excluded from consideration. It should be immediately added, however, that the overt nature of the dispute may be merely symptomatic of more (or less) serious problems existing between the two disputants.

Beattie is quite explicit with regard to what he observes as the primary aim of tradition-oriented court systems in Uganda: it is restoration of good relations and not the punishment of an offender. In this respect, then, Burke and Beattie concur in their observations. Neither of them, however, discuss the possible individual (i.e., psychological) motivations for the selection of one court system vis-a-vis the other. Such omissions are of course understandable, given the disciplines from which the two were working; i.e., political science and anthropology respectively.

China (Taiwan)

Bernard Gallin (1966) notes that in Taiwan, for much the same reasons as were mentioned by Ayoub with respect to Lebanon, villagers are now faced with a choice of whether to have their disputes settled by kinship affiliates in their own local villages or whether to seek extravillage means. Gallin points to land reform as a major force causing the decline in the power which the Chinese tau (lineage) formerly had in its enforcement of dispute settlements. With land no longer in the hands of the tau, and with the creation of modern forms

of legal adjudication, the individual villager is now able to take his dispute away from the jurisdiction of the village lineage heads without fear of economic repraisals. Other factors responsible for this newly-created choice situation include a market economy and increased migration to the city. Gallin notes that, as a consequence,

> "The people no longer insist that disputes be settled in a way that preserves harmonious local relations." (Gallin, 1966; pg. 272)

This emphasis on the preservation of social harmony is, as we have seen, a rather persistent theme throughout many societies.

U.S.A. (Alaska)

Writing in an article which appeared in the same volume as Gallin's, Charles Hughes (1966) notes that a similar situation exists in Alaska. Historically, according to Hughes, minor disputes between individuals were settled by public wrestling matches -- the victor being awarded the verdict. The major rationale for such matches was "a desire to keep the peace." Hughes traces the evolution of dispute settlement from these "contasts" to contemporary "councils" which were established by American legislation. According to Hughes, these councils were not accepted grudingly by the Eskimo; on the contrary,

> "...there was a high positive acceptance of the councils legitimate right to deal in matters that had for so long been the province of the clan, settled through negotiations between clan siders..."[2] (Hughes, 1966; pg. 258)

Later comments seem almost prophetic in terms of the objectives of the present thesis:

> "...one may say that (the council) dealt with many of the problems formerly dealt with exclusively by the clans, and it did this with a greater degree of effectiveness and acceptance. It did not supersede the clans, at least not directly and immediately, but rather channeled many of their social functions -- and some of their leading spokesman-- into a new formal structure. This situation perhaps suggests a model of general applicability, so far as possibilities for centralization of political authority in acaphalous societies are concerned. (Hughes, 1966; pg. 258-259)

The major difference between Hughes' suggestion and the procedures here is, again, one of levels of analysis. This, hopefully, will become clearer in later paragraphs.

India

Bernard Cohn's (1967) article regarding law and change in North India vividly reveals the complications which characterize Indian attitudes toward the prevailing dual court system. Like the rest of the societies which have been examined, traditional adjudication procedures in India, according to Cohn, placed heavy emphasis on compromise and mediation through kinship lines.

When the British imposed their dispute settlement procedures upon the Indian culture, they found unexpected indigenous reactions. While the Indian villager supported the new institutions in terms of his taking a dispute there for settlement, he did so more for purposes

of extracting vengeance rather than for any wish to have the dispute settled; indeed, Cohn claims that many Indians used the courts to intensify the dispute. The modern courts quickly became a mechanism characterized by lengthy proceedings, use of forged documents, perjury, and gambling on the part of legal speculators. Cohn quotes a historian as ascribing a "slot-machine" attitude toward the courts on the part of Indians. The reasons for such an attitude are seen in terms of several value conflicts: (1) the British emphasis on individual equality before law as opposed to indigenous Indian emphasis on inequality; (2) the British notions of contractual relationships vis-a-vis the Indians' experience with hereditary relationships; (3) the British emphasis on a clear-cut decision as opposed to the Indian value on the postponement of such decisions; and (4) the importance which the British placed upon the exclusion of irrelevancies as opposed to the Indian desire for a full ventilation of past, present, and future issues.

This situation in India, as described by Cohn, is significant for several reasons. First of all, it seems to represent the extreme limits to which the injection of political support is capable of going (in the absence of concommitant ideological shifts). Moreover, the Indian example alerts us to the importance of "non-rational" elements influencing decision-making in the dispute-settlement context. Finally, Cohn's explanation of the phenomena underscores many of the observations made by Gibbs with respect to Liberia (see pages 22-23).

It should be made explicit that only the surface has been scratched with respect to the total list of societies which are characterized as possessing two political subsystems, each of which is concerned with the adjudication of personal disputes. The selection of societies for inclusion here was based primarily on the fact that certain scholars writing about them have addressed themselves more directly to the problem under consideration.

Considering the examples presented above, what common characteristics seem evident? Already mentioned is the fact that virtually all of the traditional structures seem geared to a primary concern with the social consequences of the dispute settlement. In general, Toennies' (1957) notions of Gemeinschaft and Gesellschaft closely approximate the behavior and orientations which characterize traditional vis-a-vis modern settlement of disputes. Toennies based his distinction on whether "rational will" or "natural will" predominates in human association. "Natural will" refers to associations which are commonly based on kinship relations, while "rational will" refers to associations based on contractual relationships. Other scholars have made the same basic dichotomy between societies; e.g., von Wiess's "sacred vs. secular;" Weber's "traditional vs. bureaucratic;" Redfield's "folk vs. urban;" Durkheim's "mechanic vs organic;" Stalin's "partriarchial vs. industrial," et. al. Parsons (1951) has also, of course, dealt extensively with the basic dichotomy in terms of what he calls "pattern variables."

It is somewhat unfortunate, perhaps, that Toennies' Ideal Types have been almost exclusively applied at the societal level, for he was quite explicit in recognizing the phenomena on an individual basis as well. Altruism, mutual sympathy, and understanding are said to characterize Gemeinschaft, while logical, rational and independent type behavior characterize Gesellschaft.

The application of the two types of orientations to the settlement of disputes is fairly straightforward. The Gemeinschaft orientation best describes those who offer support to traditional political structures because these, in general, are based on kinship principles. (Kuper and Kuper, 1965) The Gesellschaft orientation, on the other hand, best describes those who take their disputes to the more modern political system. Abrahams (1967) epitomizes the situation thusly:

> "If the main aim of the offended person is the punishment of the offender, perhaps at a cost of breaking their relationship, he will take (the dispute) before the chiefdom (modern) court, if, on the other hand, he values his relationship with the offender, yet wishes for some form of satisfaction, he will take the case before the neighborhood (traditional) court..."
>
> (Abrahams, 1967; pg. 166)

Abrahams' statement is noteworthy for several reasons. First of all, he presents the choice situation unambiguously; secondly, he acknowledges the importance of individual motivations (Toennies "will") in the support of one legal system over the other; thirdly, he locates the basis of these motivations in individual values and

value orientations. In brief, Abrahams is one of the few authors who has captured the psychological or cognitive significance of the dispute settlement situation. His observations take on added significance with the recognition that, in terms of the present study, the data to be analyzed were collected in the same areas in which Abrahams did his study.

# CHAPTER III

## METHODOLOGY - PHASE I OF THE MODEL

Chapter I outlined the basic problem area and the conceptual scheme through which it was to be examined. Chapter II gave a brief overview of societies in which the problem exists. The purpose of the present chapter is to describe the methodology employed in the construction of a computer program designed to model the dispute decision-making process. The model described below is actually only the first phase of a two-phase model. The second phase will be discussed in a subsequent chapter.

### General Methodology

#### Why Models?

Before proceeding to describe the model constructed here it might be beneficial to talk first of what exactly is meant by "model." A general model was defined earlier as one "the structure of which is substantially invariant" over the class of phenomena for which it is designed. What has not been made explicit is what is meant by the term "model" or modelling itself.

Basically, a model is a replica of some product or process. It may take the form of a physical replica (such as a model airplane),

a verbal replica (such as a description of the process of "dissonance reduction") or a symbolic (mathematical) replica (such as a functional equation relating the volume and pressure of gas). A computer model might best be defined as a symbolic model programmed to run on a digital computer.

One of the most important advantages of a model -- is that a model provides a frame of reference for consideration of a problem. As others have noted this is an advantage even "if the preliminary model does not lead to successful prediction." (Bross, 1953; pg. 170) More specific to the concerns of this thesis, a model offers to the researcher a needed focus for cross-cultural comparative research. Models can, for example, be built on the basis of data collected in one society and tested in several others.

Another advantage of models, not unrelated to one mentioned above, is that through the process of abstraction the model maker is forced to make decisions regarding the relevance of attributes. In so doing, new research questions emerge, leading ultimately to more refined theories.

A third advantage of the computer or mathematical model (as opposed to a physical model) is the flexibility derived through the use of symbols. The manipulative flexibility of symbolic language permits concise, unambiguous, statements concerning the phenomena under study.

## Subjects and Data

The data used in the construction of the model were collected by Dr. Norman Miller of the Department of Political Science, Michigan State University. The data were collected as part of a field survey conducted in three districts in the East African country of Tanzania. Attitudinal and demographic data were collected on 434 male African respondents. Approximately a third of the total were collected in a random fashion from Government tax roles; the remaining two-thirds were selected in a purposive fashion in accord with the research aims of Professor Miller and his associates.[1]

Table 1 presents some relevant data concerning the characteristics of the subjects used in the study. For most analyses, omissions were treated as modal responses. Exceptions to this general rule will be noted where appropriate.

The three districts listed in Table 1 are occupied by the corresponding three major tribes; i.e., the Nyamwezi live largely in the Tabora district, the Nyakusa live in the Rungwe district, and the Zaramo in the Kisarawe district. The category "other," listed under tribal affiliation, refers to a conglomerate of thirty diverse tribes scattered throughout the three regions; the Ndali tribe comprise 20% of this remaining group.

---

[1]These remaining respondents were identified as leaders through a reputational/positional procedure of selection.

Table 1. Description of Subjects Used in Study.

| Variable | Code | Frequency | Per cent |
|---|---|---|---|
| DISTRICT | Kisarawe | 136 | 31 |
| | Rungwe | 143 | 33 |
| | Tabora | 155 | 36 |
| TRIBE | Nyamwezi | 112 | 26 |
| | Nyakusa | 87 | 20 |
| | Zaramo | 81 | 19 |
| | Other | 154 | 35 |
| AGE | (Mean = 43.71) | | |
| | (S.D. = 15.48) | | |
| RELIGION | Christian | 150 | 35 |
| | Islam | 217 | 50 |
| | Other | 67 | 15 |
| EDUCATION | (Mode = 1 year) | | |
| | (Median = 3 years) | | |
| | (Range = none to university) | | |
| OCCUPATION | Farmer | 173 | 48 |
| | Non-farmer | 261 | 52 |

## General Description of the Computer Model

As indicated earlier, the computer model is divided into two parts. The first part (described in the present chapter) consists of a sequence of propositions which relate to assumed personality predispositions regarding the settlement of personal disputes. Further, these predispositions were assumed to operate additively; i.e., they were treated as though they summate. Two typical propositions follow:

1. A highly educated person is likely to go to the modern court for the settlement of personal disputes.

2. A person who believes that the Government has been responsive to his needs will go to the modern court.

These two propositions were then translated into FORTRAN computer language by utilizing symbols to represent the two variables (i.e., education and satisfaction with the Government). In general, the FORTRAN statements were of the "logical if" type. For example, if we let $X_1$ refer to the education variable and $X_2$ refer to satisfaction, and $X_3$ to their sum -- and if the value 1 represents a high score and 0 a low score, FORTRAN statements can be written thusly:

```
1  IF (X(1).EQ.1)  X(3) = (Some weight)
2  IF (X(2).EQ.1)  X(3) = X(3) + (Some weight)
```

Statement number one says "if variable number one equals the value 1, variable number 3 is equal to some weight." If this condition is not

true; i.e., if X(1) is less than or greater than 1, the computer will ignore statement 1 and go to the next statement, etc. At the end of a sequence of such statements (there are over three hundred in the model), each individual has a particular summated predisposition score indicating the degree to which he is "modern-oriented." These scores were then compared with a person's actual decision (the dependent variable -- whether he goes to a modern court or to a traditional court). The accuracy of the model, in part, was assessed by comparing observed with predicted values.

Phase II of the model (to be described more fully in Chapter V) grouped all subjects into three categories depending on their total summated score: Group A included those whose modern predispositions were high; Group B included those whose modern predispositions were low (i.e., their traditional predispositions were high); Group C are those who fall midway between the two; i.e., Group C consisted of those who were not predisposed one way or the other. Groups A and B were considered as <u>influencers</u> and Group C, since they did not have strong predispositions, were considered as capable of being influenced, or <u>influencees</u>.

The extension of the model, then, attempted to increase prediction by building an interaction process between members of the various predisposition groups. This was achieved by having the computer match each influencee with all influencers (both modern and traditional).

Several "influence" propositions, derived from communication theory and behavioral science theory in general, were designed to represent the process. Two such propositions follow:

1. Influence is likely to occur if the influencer and influencee have similar attitudes.

2. Influence is likely to occur if the influencer and influencee live in the same village.

The FORTRAN statements representing these two propositions are in essence similar to those presented earlier. The overall programming of the interaction phase was, however, more complicated and will be described more fully in subsequent chapters. Figure 3 illustrates the overall operation of the model.

## Variables and Propositions

As background to a more detailed description of the model, it is perhaps necessary to deal more explicitly with the various predispositional and stimulus factors which were presumed to play a part in determining whether a person takes his disputes to the modern court or to the traditional court.

In part, the following paragraphs attempt to underscore the fact that the importance of social relationships, which was emphasized in the preceding chapter, is not the only determining factor in the process. In general, there are three classes of variables which tend to influence the decision of an individual: (1) the nature of the

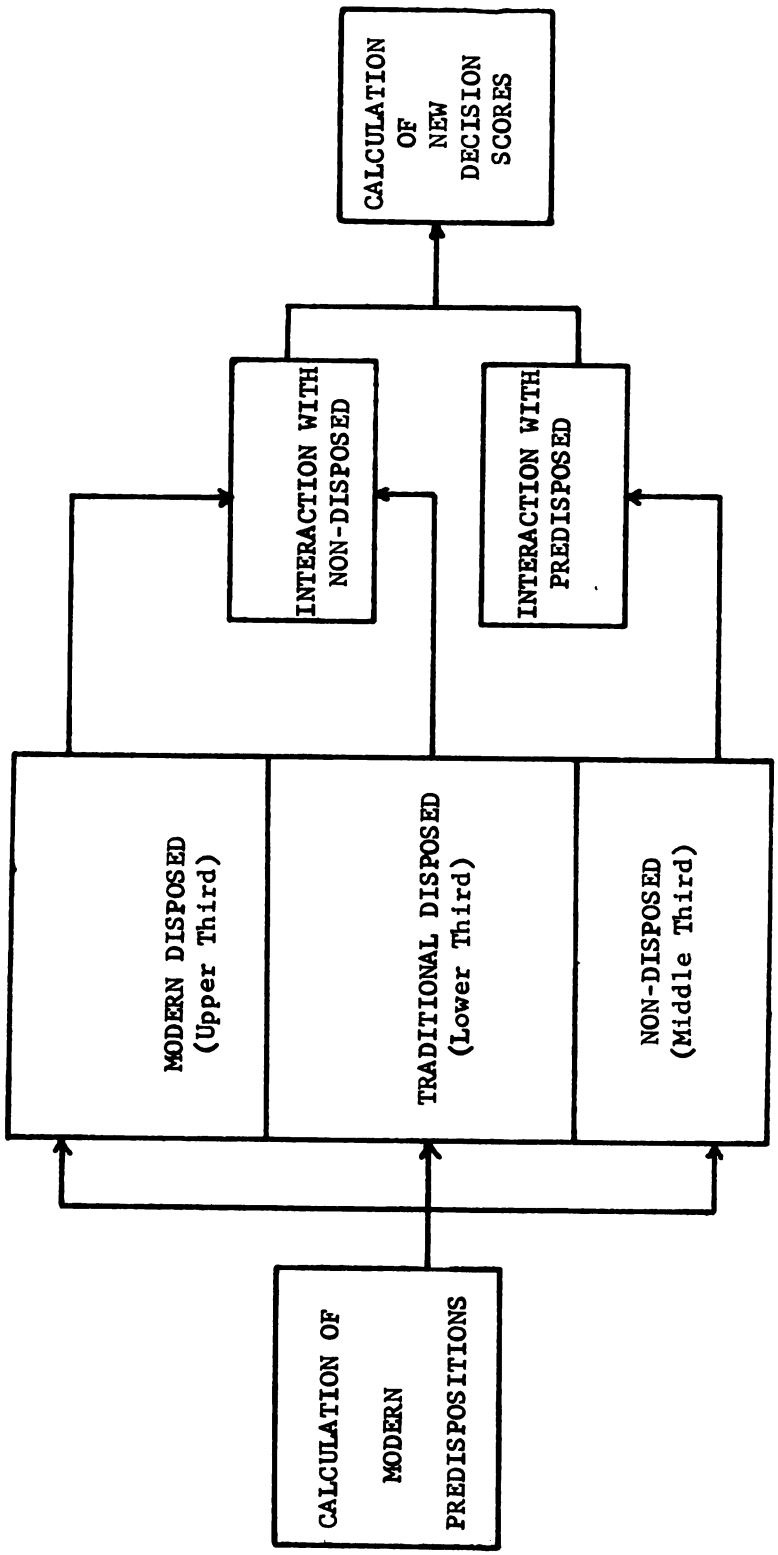



Figure 3. Flow Chart of Overall Operation

particular dispute (the imput or stimulus variable); (2) the nature of the individual himself (the status or transformation variables); and (3) the environmental or situational circumstances in which the decision is to be made (the system environment). Figure 4 diagrams these three variable classes. Since these three types of variables are integral to the model, they will be discussed in turn.

## Kind of Dispute

It is clear that in preceding discussion it was assumed that the particular dispute was one amenable to settlement in either court system. If such a situation did not exist, there would be of course no problem of which court system is accorded legitimacy at the expanse of the other; i.e., both would be considered legitimate in certain more or less well-defined spheres. Though possible, it is very unlikely that such a situation would exist for any length of time. In any case, this is not the type of situation which is of particular importance to the behavioral scientist.

The kinds of disputes which have been assumed (on the basis of published, ethnographic literature) to be capable of either traditional or modern solution include the following:

1. Verbal abuse
2. Assault
3. Theft
4. Fraud
5. Compensation for crop damage
6. Failure to repay debt
7. Land boundary disputes
8. Inheritance rights

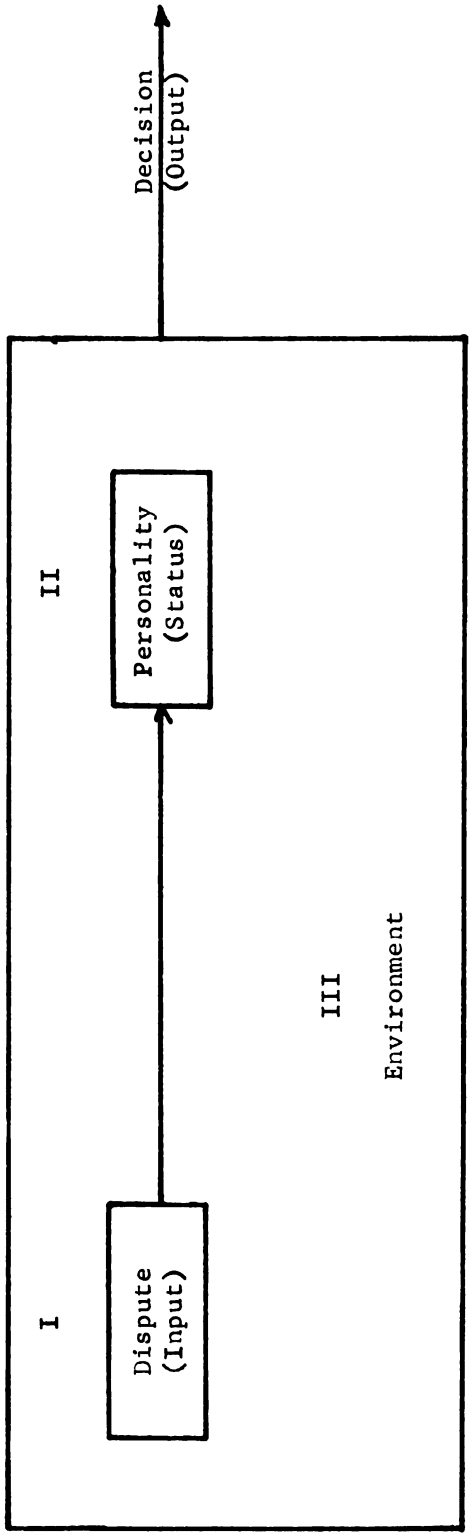



Figure 4. Three Major Types of Variables Affecting Dispute-Settlement Decision-Making

It should be immediately acknowledged that in some societies some of the above named disputes will be the exclusive province of one or the other legal system. On the basis of the literature surveyed, particularly that literature most directly relevant to East Africa, the above seem to be generally susceptible to settlement in either system. They are ranked in descending order, on the basis of the extent to which they depart from fifty-fifty probabilities of being settled in either court system; i.e., there is probably a greater chance for inheritance rights to be the exclusive province of either one system or the other than there is for assult, etc. They all, however, fall within a certain narrow range.

The difficulty of ascribing any kind of common dimension to the above eight disputes is readily appreciated. Even such a likely candidate as "degree of seriousness" exhibits such gross distortions of reality that one is tempted to bypass the problem altogether and consider the dispute as a constant system input. To do so, however, ignores an important advantage which computer-based analyses have over other research strategies; i.e., the ability, indeed desirability, to allow variables to take on as many values as necessary to present a realistic portrayal of the phenomena under study. With this in mind, the model was constructed so as to make it possible to take as input those disputes which could assume the following dimensions: economic vs. non-economic and/or kin-related vs. non-kin-related.[1]

---

[1]In fact, however, initial runs of the model assumed a constant stimulus input for all subjects.

These two dimensions were selected after much thought and perusal of the literature. While not completely satisfactory, they have an intuitive appeal and their distortions of reality are minimal.

## Individual Factors Influencing Decision-Making

Several psychological variables present themselves for consideration; these include motivations, attitudes, values, and beliefs.

The problem of motivations was discussed briefly in Chapter II. The primary consideration here was whether, in addition to solving the dispute, the individual wanted to exact revenge. If so, the modern court with its written regulations, cold rationality, and propensity for issuing severe punishments would likely to be chosen. Other motives tending to favor the modern court system include a desire for the exactment of some cash recompense and a wish for some future benefit on the part of legal officials. This latter motivation assumes a certain level of political sophistication.

Gibbs (1963), as indicated previously, suggests that if a person wants a thorough ventilation of issues confronting him and the other disputant, it is likely that the dispute will be taken to the traditional court. As has been noted earlier, the literature has rarely discussed the problem of dispute settlement from a psychological perspective, so the concept of motivation has not been given much attention. From the available evidence, however, it seems as though the motives discussed here are the most crucial.

In terms of attitude, the general statement is that an individual who has a favorable attitude towards the Central Government is likely to take his disputes there for settlement; conversely, an individual who has a negative attitude toward the Central Government is likely to take his disputes to a court unassociated with the Central Government.

One of the best indicators of whether or not a person is favorably disposed toward the modern government, according to Easton, (1957) is whether or not he perceives his demands made upon it to have been satisfied. Each member of the political community can thus be described in terms of a "Demands met/demands made" ratio; the ratio can then be translated into a measure of probable support. The more closely the ratio reaches 1.00, "perfect satisfaction," the more probable that the individual will offer support under varying system conditions.

Clearly related to this "demands met/demands made" ratio is the extent to which the individual has received a favorable verdict at the hands of the modern (traditional) court in the past; i.e., how much he has been rewarded. It is a basic psychological principle that a person will tend to repeat that behavior for which he has been rewarded. Unfortunately, however, available data do not tap this dimension of the problem.

The distinction between attitudes and values is often made on the basis of the object-orientation of the former and the non-object or more general and basic nature of the latter. (Rokeach, 1967)

Values are thus said to relate to modes of general conduct or to a preferred end-state of existence. One crucial value has already been mentioned in several contexts: the extent to which an individual places importance on interdependance and reciprocity among people or, in general, his sensitivity towards "good company" (Wilson, 1951). The traditional court system has this value as a central concern, whereas the modern court places more emphasis on impersonal written law.

As indicated earlier, however, this social relationship variable is likely to interact with several others rather than exert any significant main effect in terms of settlement choice. Other values (e.g., those dealing with the importance of cattle or land) might be equally if not more, important -- but, unlike the emphasis on social relationships, these other values would probably be relatively specific to particular societies.

Closely related to attitudinal and value factors are those which can be classified under an "informational" heading; i.e., beliefs, knowledge, etc. Fundamentally, a person who does not know that a modern court system exists for the settlement of his disputes will hardly be in a position to support such a system. Such an extreme case violates the basic assumption that a choice situation does exist; this, then, implies a certain minimal level of information about the two legal systems. Given this minimal amount, however, there are certain to be some individuals with greater amounts of and more accurate information about the two systems. Indeed, the ability to weigh

alternatives in a decision-making situation is ultimately dependent upon one's access to information regarding the alternatives.

Coupled with the above discussed cognitive variables are the demographic variables which may also influence an individual's dispute settlement decision. If, for example, a person lives considerably closer to the modern court than to a traditional court, he is more likely to take his disputes to the former for settlement, ceteris paribus (Tanner, 1966). If, however, the same individual has an automobile or bicycle, the choice may change.

Some other, rather obvious, demographic characteristics include: age (young people are more apt to go to the modern court); education (uneducated people are more apt to go to traditional courts); and economic class (wealthy people are more likely to go to the modern court). Other personality variables which are relevant include geographic mobility and communication patterns.

## Situational Factors

By situational factors is meant those variables which concern the circumstances in which the particular dispute takes place. If, for example, the dispute is between individuals who have had a long history of mutual hostility, it is likely that the dispute will be taken to a traditional court where the disputants will enjoy a more thorough ventilation of issues. Another factor under this category is the geographic distance separating the two disputants -- if it is great, there is a greater likelihood that the dispute will be taken to a modern court.

A situational factor which was considered as a constant factor in the present model, but one which is worthy of analysis in its own right, is the political climate existing between the two legal subsystems. This was mentioned earlier in terms of a game-like situation in which the two subsystems would vie for the support of dispute-ridden villagers.

## Summary of Determinants of Dispute Settlement Decisions

The major purpose of the preceding paragraphs was to set the stage for a more formal presentation of the model described below. Three general classes of variables which influence the villager's choice were noted: (1) the nature of the dispute; (2) the psychological and demographic characteristics (predispositions) of the individual; and (3) the environmental or situational factors surrounding the dispute.

What is important scientifically, however, is not merely a listing of the variables, but an indication of the manner in which they operate so as to produce a given output, in this case a particular decision. What is needed, then, is theory. Unfortunately, there is no well-formulated theory of dispute decision-making which would be applicable in the present case. A great deal of time and energy has been spent, however, on an elucidation of those elements which differentiate modern societies from traditional societies and, presumably, individual members within each from each other.

The work of Toennies (1957), etl al. was mentioned earlier in this connection. This work was drawn upon to arrive at the following postulates which served to guide the detailed construction of the computer model:

1. Within any given society, there exists two types of people: those who are motivated in their behavior by considerations of social obligations or approval and those who are motivated by considerations essentially unrelated to social concerns;

2. In any decision-making situation, the motivations of a person color his perceptions of the alternatives open to him. These perceptions differentially affect (1) the value of the implications of the decision; (2) the relative subjective probabilities of the consequences, and (3) attitudes toward risk and uncertainty.

Postulate 2, it is noted, takes some cognizance of the elements of classical decision theory; these were not, however, introduced formally into the model (Edwards, 1954).

The two postulates above were the theoretic basis for the construction of the predisposition propositions listed below. Before enumerating these propositions, it might be useful to describe more formally the operation of the computer model.

## Description of the Model

The computer takes as input a dispute (stimulus) which can be coded into four possible states, reflecting the dimensions mentioned earlier: economic/non-economic and kin-related and non-kin-related. The states of the input variable are diagrammed in Figure 5.

| | Economic | Non-Economic |
|---|---|---|
| Kin Related | (1,1)<br>$D = b_1 + b_1 v$<br>Type A | (0,1)<br>$D = a_2 + b_2 v$<br>Type B |
| Non-Kin Related | (1,0)<br>$D = a_3 + b_3 v$<br>Type C | (0,0)<br>$D = a_4 + b_4 v$<br>Type D |

Figure 5. Dimensions of Dispute and Models Associated with Each

Associated with each state of the input variable is an assumed linear equation of the form: $D = a_n + b_n v$ where D indicates the particular decision made, $a_n$ is a constant (omitted in the present model), $a_v$ is equal to a sum of variables ($v_1 + v_2 \ldots v_k$) and $b_n$ is an arbitrarily derived weight. It will be noted that the model is deterministic; no allowance is made for error variance.

It should be noted, further, that the present model deals only with one cell, (A) in Figure 5; and because there is no measure of the input variable (type of dispute) in the data used in the construction of the model, much of what is said in this connection is hypothetical. It has been assumed that the response to the major dependent variable (i.e., "To whom do you go to settle your disputes?") were reactions to a Type A dispute (an economic and kin-related one.)

The computer stores n factors each consisting of j cells, n being the number of subjects being processed and j the number of variables on which each subject is measured. Each subject is examined, in turn, and is assigned a "modern-oriented" (MO) score on the basis of his weighted response to each transformation variable ($j_1 \ldots j_n$). The transformation variables (i.e., attitudes, values, etc.) are "kicked on" by a given proposition. For example, one proposition reads:

> If a person has had more than four years of education, he will go to the modern court. (With a weight of 7)

If subject $S_{33}$, for example, has had more than four years of education, the computer will then assign a score of 7 to whatever sum has already been placed in the storage location holding his MO total. After all variables have been examined, his total is divided by the total possible score (80 for the run described here) so as to give the individual an over-all predisposition score between .00 and 1.00. A score of .50 or more is considered as a modern decision; less than .50 is considered a traditional decision.

The computer-derived decisions were then paired with the "true" decision (i.e., the value of dependent variable). A correct prediction was called a "match;" and an incorrect prediction was termed a "mismatch." The test for the model's validity, then, was the percentage of matches, or correct predictions. It should be noted, however, that what has been described refers only to the first (pre-interaction) phase of the model. Additional tests of accuracy were performed after consideration of the influence or interaction phase of the decision process.

Returning to a consideration of the first phase of the model, the propositions listed on the following pages were derived from the two postulates listed previously. The propositions are listed under six headings: Communication, Kinship, Demography, Organizational, Attitudinal, and Knowledge. The failure of these headings to correspond exactly with the three types of variables presented in Figure 4 indicates a shift in level of analysis from a

more general to the more specific, rather than a fundamental re-conceptualization. In other words, these headings represent six types of status variables. The weights assigned to the propositions reflecting these six types of status variables were somewhat arbitrary, but all were based on a common kind of dispute: economic and kin-related. Other kinds of disputes (e.g., cells B,C, or D in Figure 5) would require a distinct set of weights since they would be acting on the status variables in a different way. It should be noted, also, that the propositions are all stated in the modern direction; i.e., only one score (a modern) is computed -- traditional predispositions are taken account of by negative weights attached to the modern score.

| Communication Propositions | Weight |
|---|---|
| 1. If a person does not live in a village, he will go to the modern court. | 5 |
| 2. If a person has traveled outside of the administrative region in which he lives, he will go to the modern court. | 5 |
| 3. If a person was born in a district other than the one in which he is currently residing, he will go to the modern court. | 5 |
| 4. If a person was born more than 50 miles from his current residence, he will go to the modern court. | 5 |
| 5. If a person has been to the National Capital, he will go to the modern court. | 5 |
| 6. If a person has been to the district capital at least five times within the past year, he will go to the modern court. | 5 |

| | Weight |
|---|---|
| 7. If a person has been to the district capital at least five times within the past month, he will go to the modern court. | 6 |
| 8. If a person has made at least four labor migrations, he will go to the modern court. | 7 |
| 9. If a person has spent more than one year on a labor migration, he will go to the modern court. | 7 |
| 10. If a person owns a radio, he will go to the modern court. | 6 |
| 11. If a person lives more than a half a mile from the village communication center (the village well), he will go to the modern court. | 7 |
| 12. If a person does not expect to stay in the village for the remainder of his life, he will go to the modern court. | 7 |
| 13. If a person owns a bicycle, he will go to the modern court. | 7 |

The thirteen propositions listed above are related to the general hypothesis that a person widely exposed to information -- through travel, labor migration, or mass media exposure -- is more likely to take his dispute to the modern court system. This is because not only will he be informed about the workings of such courts, but he will also have loosened the ties of kinship affiliations which might otherwise propel him into the traditional courts (cf. discussion below). Rogers (1962), writing in the context of the diffusion of ideas and practices in rural communities, refers to such travel as the "Des Moines complex;" i.e., the desire to travel, particularly to capital cities, is closely related to the acceptance

of innovations. The general concept of mobility and how it is related to modernization has been dealt with extensively by Lerner (1958) and others.

Although the propositions listed above are assumed to tap rather general (communication) traits, it will be noticed that they are rather specific in tone; this is due largely to the data which are currently available for the construction of the model.

| Kinship Propositions | Weight |
|---|---|
| 14. If a person is married, he will go to the modern court. | -6 |
| 15. If a person has more than one wife, he will go to the modern court. | -7 |
| 16. If a person has more than four children, he will go to the modern court. | -7 |
| 17. If a person has more than six people on his homestead, he will go to the modern court. | -5 |
| 18. If a person has more than three sons under 21 years of age, he will go to the modern court. | -3 |
| 19. If a person has more than three daughters under 21, he will go to the modern court. | -3 |
| 20. If a person is related to the chief, he will go to the modern court. | -6 |

The importance of this set of variables has been explicitly stated in several parts of this thesis. The general hypothesis here is that the more entangling the "seamless web of kinship affiliations," the more likely it is that an individual will <u>not</u> take his dispute

to the modern court system (hence, the negative weights). The anthropological literature supporting these propositions is extensive (Simmel, 1955; Radcliffe-Brown and Forde, 1964).

| Demographic Propositions | Weight |
|---|---|
| 21. If a person is Christian, he will go to the modern court. | 4 |
| 22. If a person is literate, he will go to the modern court. | 7 |
| 23. If a person has had more than four years of education, he will go to the modern court. | 7 |
| 24. If a person wears shoes, he will go to the modern court. | 3 |
| 25. If a person has attended a Koranic school, he will go to the modern court. | -3 |
| 26. If a person's income in 1964 was over 800 shillings ($100.00), he will go to the modern court. | 6 |
| 27. If a person's income is increasing, he will go to the modern court. | 5 |
| 28. If a person's job stability is fairly high (no changes in the past four years), he will go to the modern court. | 6 |
| 29. If a person works for the Federal Government, he will go to the modern court. | 7 |
| 30. If a person is under 36, he will go to modern court. | 6 |
| 31. If a person has more than two other people working for him on a farm, he will go to the modern court. | 5 |

The variables listed above are those commonly associated with modernism vis-a-vis traditionalism. The major hypothesis here is that those high in income, occupational prestige, education, literacy, etc. will favor the modern court system as opposed to the traditional court system. The propositions themselves are self-explanatory.

| Organizational Propositions | Weight |
|---|---|
| 32. If a person is a member of the major political party (TANU), he will go to the modern court. | 6 |
| 33. If a person has been a member of the major political party for more than five years, he will go to the modern court. | 5 |
| 34. If a person belongs to a labor union he will go to the modern court. | 4 |
| 35. If a person belongs to an economic cooperative, he will go to the modern court. | 5 |

The hypothesis related to these propositions is that membership in non-kin groups tends to weaken kin ties and hence, makes one more likely to take his disputes to the modern court system (McCall, 1955). This is particularly true, of course, if the individual belongs to a political party strongly associated with the Central Government and weakly affiliated with traditional kinship systems (i.e., a lineage, or clan).

| Attitudinal Propositions | Weight |
|---|---|
| 36. If a person believes that education should benefit the country rather than the individual, he will go to the modern court. | 5 |
| 37. If a person would like to change the type of work he is currently engaged in, he will go to the modern court. | 4 |
| 38. If a person would like to go to the Nation's capital city, he will go to the modern court. | 6 |
| 39. If a person would like to go to the capital city for economic reasons (as opposed to social reasons), he will go to the modern court. | 6 |
| 40. If a person believes that one should always obey one's chief, he will go to the modern court. | -4 |
| 41. If a person joined the major political party volumtarily, he will go to the modern court. | 3 |
| 42. If a person believes that women should not be allowed to work in the city, he will go to the modern court. | -4 |
| 43. If a person prefers a small amount of money now to a large amount at a later time, he will go to the modern court. | -4 |
| 44. If a person believes that women are associated with witchcraft, he will go to the modern court. | -5 |
| 45. If a person believes that people carry magic within them, he will go to the modern court. | -5 |
| 46. If a person believes that government matters are too complicated for him to understand, he will go to the modern court. | -4 |
| 47. If a person believes in endogamy, he will go to the modern court. | -4 |

| Attitudinal Propositions | Weight |
|---|---|
| 48. If a person believes that villagers should not become involved in politics, he will go to the modern court. | -4 |
| 49. If a person prefers the "old ways" to the "new ways," he will go to the modern court. | -7 |
| 50. If a person believes that the Government has been responsive to his demands, he will go to the modern court. | 7 |
| 51. If a person believes that he will be working on the same job in five years, he will go to the modern court. | -4 |
| 52. If a person is able to specify the exact amount of money he will earn in five years, he will go to the modern court. | 4 |

The fundamental hypothesis in the above propositions is that people with traditional attitudes will take their disputes to the traditional courts, and vice-versa for those with modern attitudes. The dimensions of what is commonly called "traditionalism" includes the following: a willingness to experience new things and places (Propositions 37-40, 51); a belief in witchcraft (Propositions 44-45); a belief in endogamy (Proposition 47); obedience to traditional authorities (Proposition 41); general attitudes toward the government and the official political party (Propositions 46, 48, 50); a desire to improve one's economic position (Propositions 39, 51, and 52); and future orientation (Proposition 43). Support for each of these propositions is widely available in the "modernization" literature (Rogers, 1962; Lerner, 1958).

| Knowledge Propositions | Weight |
|---|---|
| 53. If a person knows about the nation's economic development plan, he will go to the modern court. | 5 |
| 54. If a person knows his chief's name, he will go to the modern court. | 5 |
| 55. If a person knows where his chief is living, he will go to the modern court. | 5 |
| 56. If a person knows what his chief's present occupation is, he will go to the modern court. | 5 |
| 57. If a person knows the name of the country, he will go to the modern court. | 3 |
| 58. If a person knows the name of the president of the country, he will go to the modern court. | 4 |
| 59. If a person knows the name of the vice president of the country, he will go to the modern court. | 5 |
| 60. If a person knows the name of the commissioner in his administrative area, he will go to the modern court. | 5 |
| 61. If a person knows the name of the commissioner in his administrative region, he will go to the modern court. | 5 |
| 62. If a person remembers political officials who have visited the area within the past year, he will go to the modern court. | 6 |

The general hypothesis relating to the group of variables listed above is that the more a person knows about modern political affairs, the more likely he is to take his dispute to the modern court system.

It will be noted that the 62 propositions listed above test for only one condition; if that condition is met, a weight (an integer value between 1 and 7) is assigned to an individual's modern pre-disposition score. The testing of two and more conditions is a logical extension of the model. The six basic hypotheses underlying the sixty-two propositions are summarized below:

Hypothesis 1: A person who is widely exposed to information through travel and communication is likely to choose the modern court over the traditional court. (Proposition 1-13)

Hypothesis 2: The greater the number of family obligations, the more likely a person will take his disputes to the traditional court as opposed to the modern court. (Proposition 14-20)

Hypothesis 3: The higher the social status (in Western terms) of an individual, the more likely he is to go to the modern court. (Proposition 21-31)

Hypothesis 4: The more non-kin-related organizations an individual belongs to, the more likely it is that he will go to the modern court. (Propositions 32-35)

Hypothesis 5: The more modern attitudes possessed by an individual, the greater the likelihood that he will take his disputes to the modern court. (Propositions 36-52)

Hypothesis 6: The more political knowledge a person possesses, the more likely he is to take his disputes to the modern court. (Propositions 53-62)

The basic assumption in the model, again, is that the variables relating to each of the propositions are additive.

Flowchart I describes the over-all operation of Phase I of the computer model. More detailed charts (I-A, I-B, I-C, I-D, I-E, I-F) show the actual testing of each individual proposition under the six headings indicated earlier. These charts are self-explanatory for the most part, with the possible exception of the adding procedure employed. In terms of the computer's arithmetic, "A = A + 1" means "take the contents of location A and add +1 to it." By including "A" on the right side of the equals sign, it is insured that whatever contents in computer location A will be retained and added to by the particular weight.

## Manipulation of Communication Variables

As indicated earlier, one of the major advantages of computer models is the ability to manipulate variables at will. Such manipulation was performed on the thirteen communication propositions listed on pages 52 and 53. The basic question was "If one communication proposition was removed and the total calculated on the basis of the remaining twelve, would this have any effect on the total score for the sample of respondents?" In order to answer this question, several FORTRAN statements were written which instructed the computer to compute for each subject 14 different communication scores; one score using all 13 propositions, and thirteen others utilizing only 12 of the propositions, a different proposition being deleted in

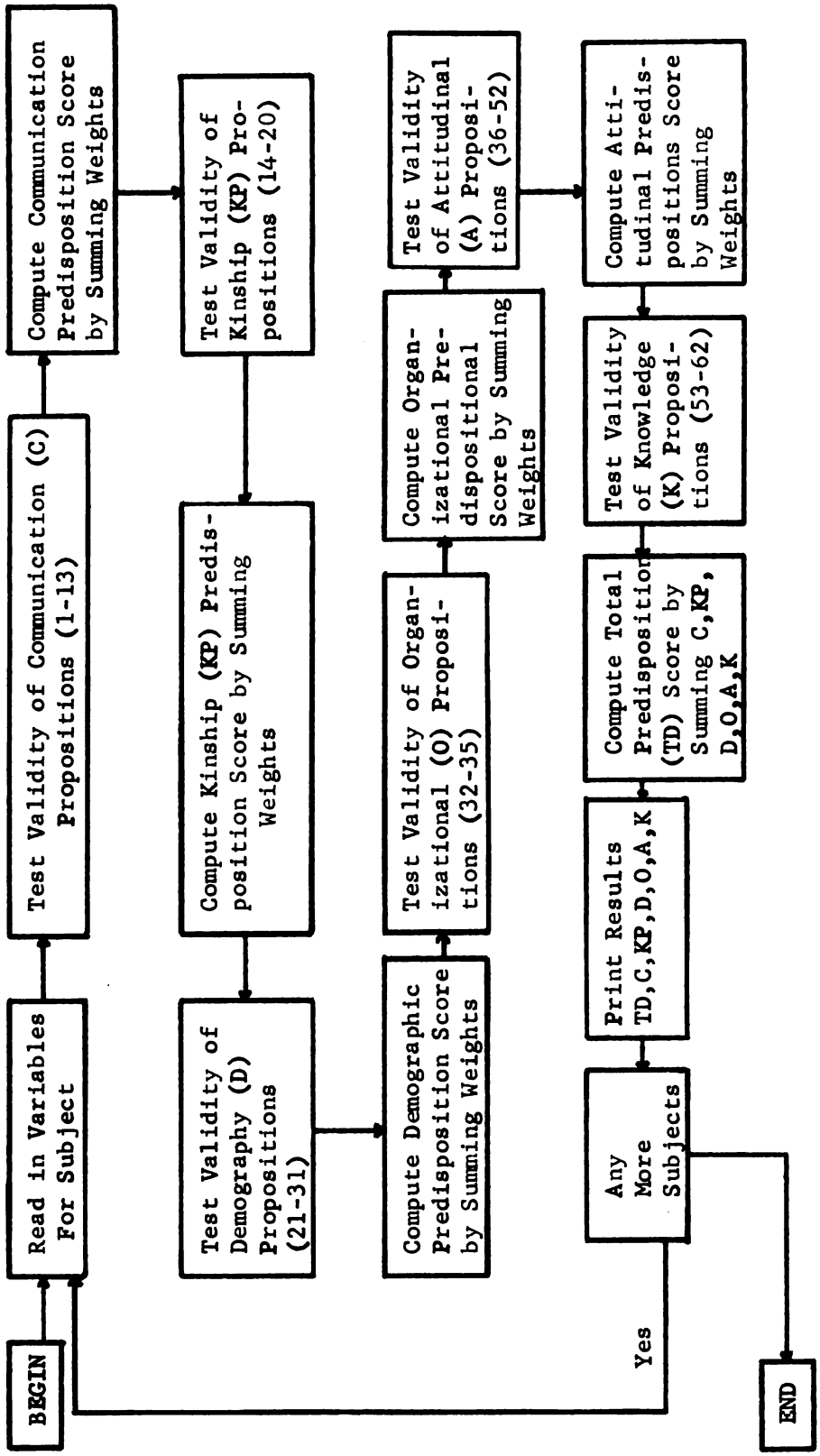



Chart I. Phase I of the Model

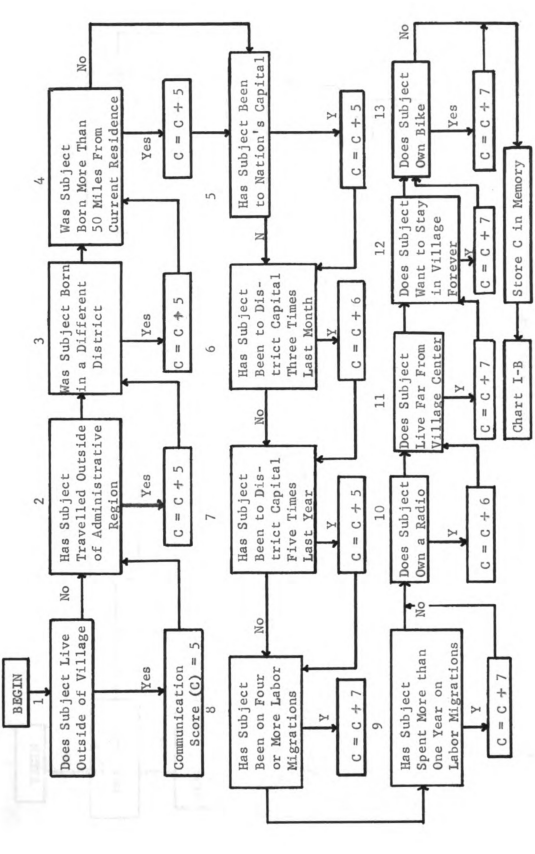



Chart I-A. Communication Propositions

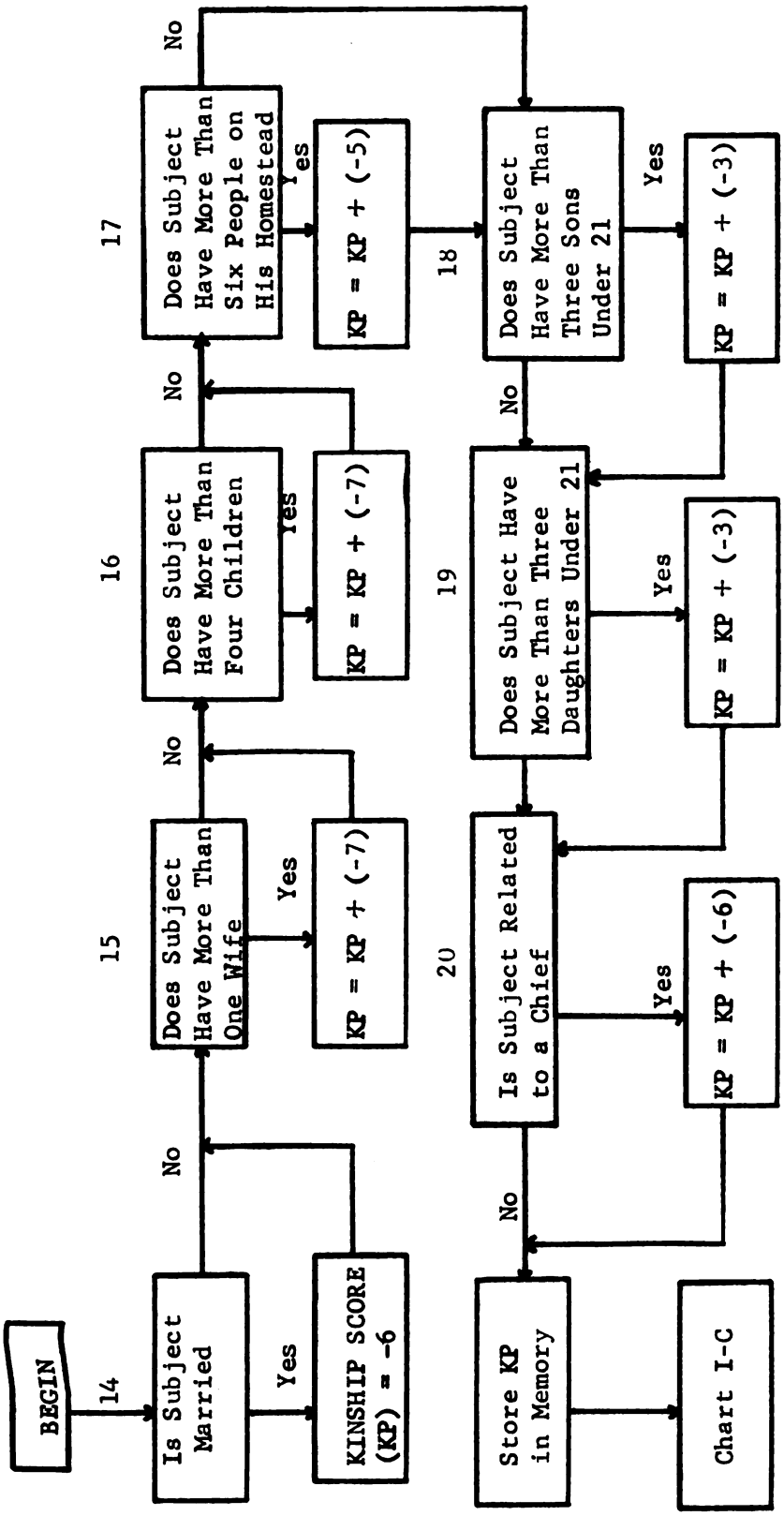



Chart I-B. Kinship Propositions

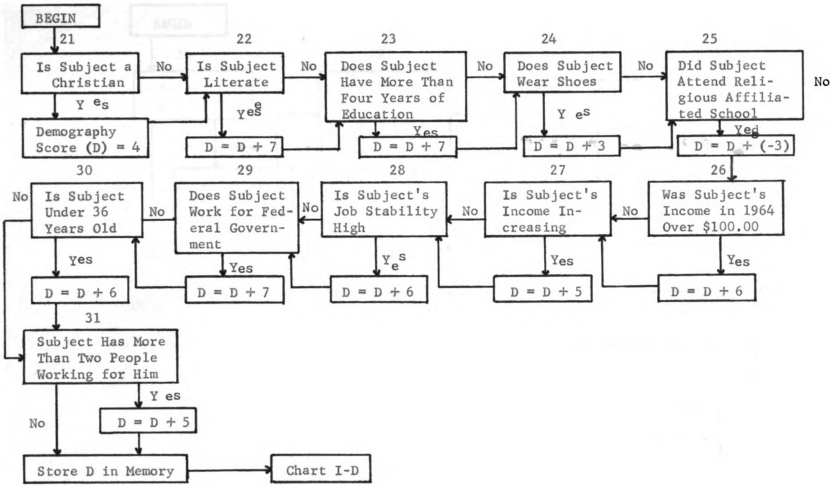



Chart I-C. Demographic Propositions

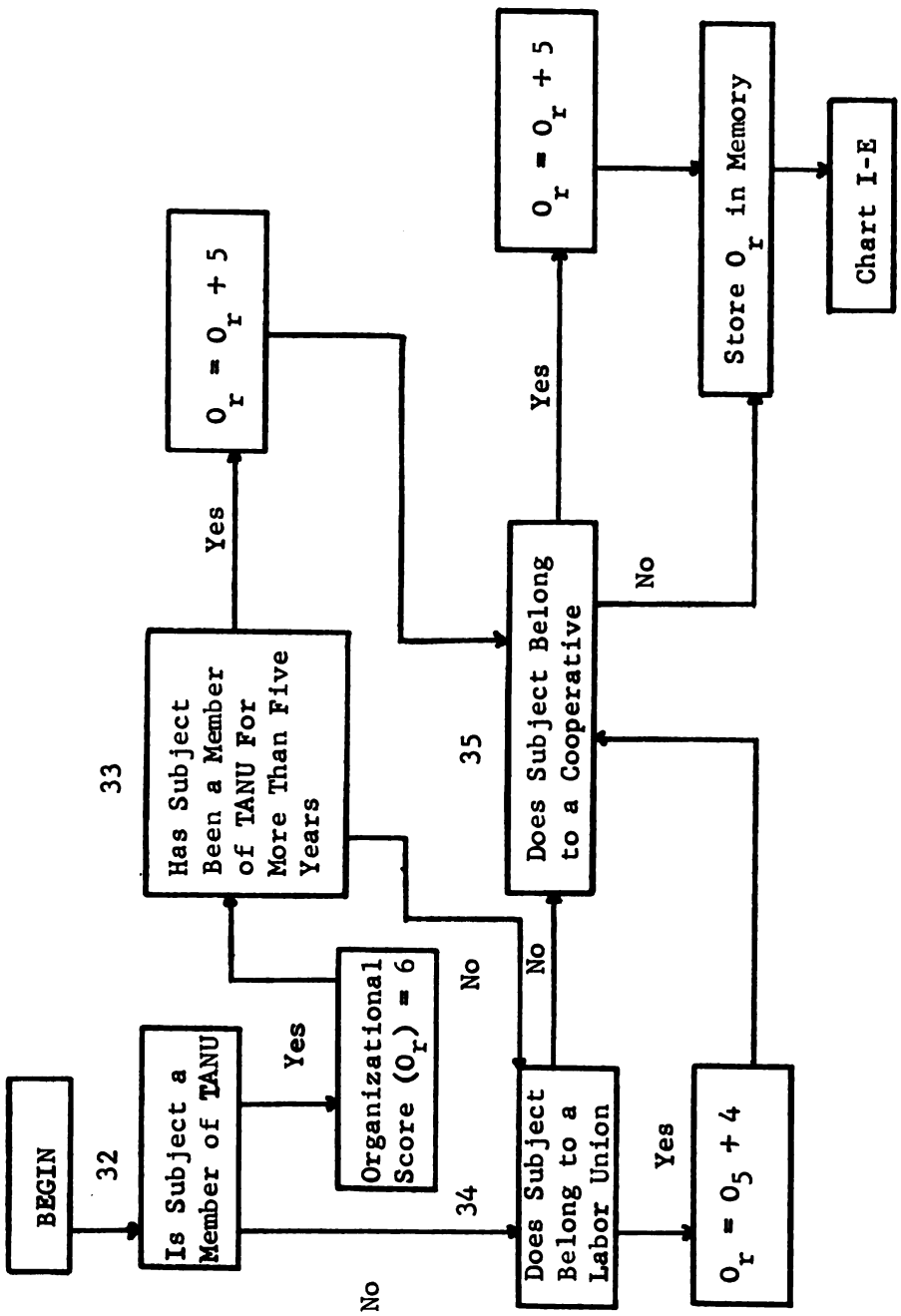



Chart I-D. Organizational Propositions

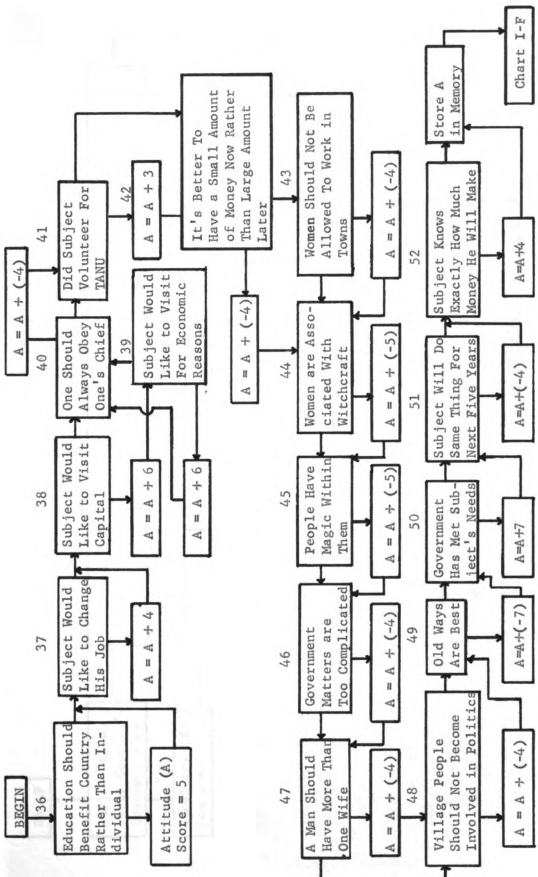



**Chart I-E. Attitudinal Propositions**

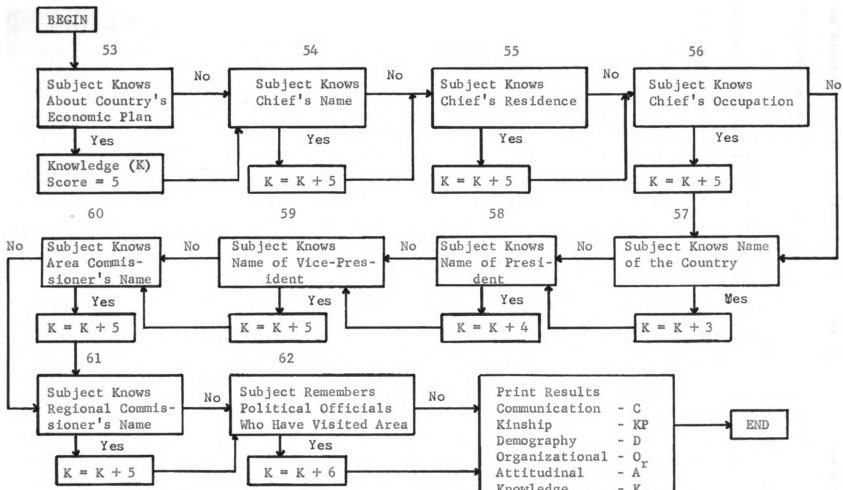



Chart I-F. Knowledge Propositions

each cycle. Flowchart I-AA illustrates the sequence of operations for the communication manipulation.

The results of the model's run are presented in the following chapter. It should be noted, however, that these results are only for the first run of the first part of the total model.

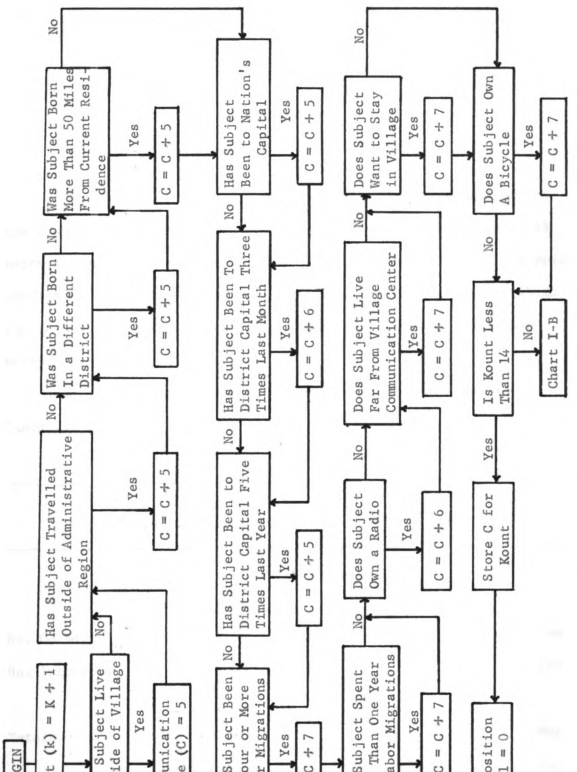



Chart I-AA. Communication Manipulation

## CHAPTER IV

## RESULTS OF PREDISPOSITION MODEL

The purpose of this chapter is to describe the results of the predisposition of pre-interaction run. The overall accuracy was 54%, representing 186 correct predictions out of a possible 341.[1] Incorrect predictions were of two kinds: (1) a modern decision prediction which was actually traditional and (2) a traditional decision prediction which was actually modern.

Both correct and incorrect predictions are summarized in Table 2.

Table 2. Results from Predisposition Model

| | Predicted Decision | | |
|---|---|---|---|
| | Modern | Traditional | |
| No. Correct | 24 | 162 | 186 |
| No. Incorrect | 44 | 111 | 155 |
| Totals | 68 | 273 | 341 |

[1]The original sample total of 434 was reduced to 331 when data omissions were dropped from the analysis.

It is obvious from Table 2 that the modern decision predictions were far less accurate than the traditional decision predictions. Twenty-four out of 68 modern decisions were predicted correctly for a percentage of only .35. With respect to the traditional predictions, however, the accuracy was considerably higher with 162 correct out of a possible 273 -- a percentage of approximately .60. These figures are based on individual predictions; in terms of prediction for the entire sample, based on the accuracy of proportions, the results are still somewhat inaccurate, as Table 3 illustrates.

Table 3. Proportions of Observed vs. Predicted Decisions from Predisposition Model.

| | Subjects' Decisions | | | |
|---|---|---|---|---|
| | Modern | | Traditional | |
| | f | % | f | % |
| Predicted | 68 | .20 | 273 | .80 |
| Observed | 135 | .40 | 206 | .60 |

Table 3 merely casts the marginal data of Table 2 into a different form. It is clear from Table 3 that the predictions based on Phase I of the model are in error by some twenty percent in terms of overall proportions. In other words, the model is "traditional-biased"

in the sense that a person is four times more likely to go to the traditional court on the basis of the model, but less than twice as likely according to observed data.

## Results for Individual Tribes

In an effort to see if the model were predicting differentially for the various tribes represented in the sample, the data in Table 2 were broken down along tribal lines. Table 4 presents data for the Nyamwezi, Zaramo, Nyakusa, and Minor tribes.

Out of the 65 members of the Nyamwezi tribe, 35 decisions were predicted correctly by the model -- a percentage of .538, close to the percentage of all subjects combined. The Nyakusa tribe shows a fairly high level of accuracy: 61 correct out of a possible 81 for a percentage of .75. The Zaramo tribe shows the lowest level of accuracy: 38%. The sample of various minor tribes was predicted at approximately chance level, 64 correct and 63 incorrect.

Table 4 shows analyses of individual predictions. In order to find out how well the model was predicting in terms of proportions, the data were recast into the form presented in Table 5. The entries in Table 5 are the percentage of respondents who (a) were predicted to make modern court decisions and (b) were observed to have made modern court decisions. The bottom row lists the observed minus expected differences.

The findings in Tables 4 and 5 can be summarized by saying that the model seems fairly accurate with respect to members of the Nyakusa

Table 4. Decision Predictions for Individual Tribes from Predisposition Model

| | Predicted Decision | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Nyamwezi (N = 65) | | Nyakusa (N = 81) | | Zaramo (N = 68) | | Minor (N = 127) | |
| | Modern | Trad. | Modern | Trad. | Modern | Trad. | Modern | Trad. |
| No. Correct | 4 | 31 | 3 | 58 | 7 | 19 | 10 | 54 |
| No. Incorrect | 8 | 22 | 12 | 8 | 0 | 42 | 24 | 39 |
| Totals | 12 | 53 | 15 | 66 | 7 | 61 | 34 | 83 |
| Percent Correct (No. Correct/total) | 35/65 = .54 | | 61/81 = .75 | | 26/68 = .38 | | 64/127 = .50 | |

Table 5. Proportion of Predicted vs. Observed Modern Decisions for Individual Tribes from Predispositional Model.

| | Tribe | | | |
|---|---|---|---|---|
| | Nyanwezi | Nyakusa | Zaramo | Minor |
| Predicted | .18 | .18 | .10 | .27 |
| Observed | .40 | .13 | .72 | .38 |
| Difference (error) | .22 | .05 | .62 | .11 |

tribe and very inaccurate with respect to the Zaramo tribe and that, on the whole, the model is predicting at slightly better than chance.

## Average Scores on Each Factor

As indicated earlier in the discussion of the computer operation, the following set of scores were obtained for each subject:

1. Communication Score (C).....Propositions 1-13
2. Kinship Score (KP).....Propositions 14-20
3. Demography Score (D).....Propositions 21-31
4. Organizational Score (O).....Propositions 32-35
5. Attitudinal Score (A).....Propositions 36-52
6. Knowledge Score (K).....Propositions 53-62
7. Total Modern Score (T).....Propositions 1-62

These scores are not related to the accuracy of the model, per se, but they do offer a glimpse into the relative contributions of each set of propositions (when the scores are standardized). They also permit a comparison among the various tribal groups discussed previously. The scores were punched out by the program and were thus made available for future use.

Table 6 presents the raw (unstandardized) means and standard deviations for the primary sample and the various tribal subsamples. To give a clearer indication of the relationship among these various factors, the scores were standardized by dividing each raw score (mean) by the total possible score for that given factor; i.e., by the sum of weights for that given set of propositions. These data are presented in Table 7.

The interpretation of Tables 6 and 7 should be prefaced with the fact that these are based on a model which predicts only slightly better than chance; a revision of the model so as to increase prediction might change the data in both of the tables. With this reservation in mind, it is interesting to note that the knowledge factor is the most important component in the total modern score; the communication factor, on the other hand, contributes the least amount to the total modern score. These results are generally true for all three tribal groups and for the collection of minor tribes, as is evident from a comparison of rankings (listed in parenthesis).

Table 6. Means and Standard Deviations of Scores for Each Group of Predisposition Propositions

| Proposition Group | All Subjects N = 341 | | Nyamwezi N = 65 | | Nyakusa N = 81 | | Zaramo N = 68 | | Minor N = 127 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. |
| *COMMUNICATION | 20.83 | 12.67 | 21.77 | 13.55 | 18.88 | 11.99 | 27.08 | 10.65 | 23.63 | 13.06 |
| **KINSHIP | 13.80 | 8.15 | 11.11 | 7.74 | 16.59 | 8.83 | 14.57 | 8.18 | 12.89 | 7.34 |
| DEMOGRAPHY | 24.39 | 11.70 | 25.46 | 12.81 | 23.47 | 12.17 | 23.23 | 8.80 | 25.10 | 12.23 |
| ORGANIZATIONAL | 13.02 | 3.96 | 12.47 | 3.84 | 13.09 | 4.36 | 13.63 | 3.28 | 12.90 | 4.07 |
| ATTITUDINAL | 28.09 | 9.06 | 26.47 | 9.80 | 27.51 | 10.00 | 28.83 | 6.82 | 28.84 | 9.14 |
| KNOWLEDGE | 34.11 | 10.92 | 31.67 | 9.66 | 30.85 | 10.94 | 38.79 | 8.72 | 34.87 | 11.62 |
| ALL PROPOSITIONS | 106.77 | 35.78 | 106.73 | 35.84 | 97.22 | 37.25 | 107.01 | 26.09 | 112.45 | 38.31 |

*The original communication score is given here; i.e., without manipulations.
**The mean values here are negative; signs have been omitted.

Table 7. Standardized Average Scores for Each Group of Predisposition Propositions

| Proposition Group | All Subjects N = 341 | | Nyamwezi N = 65 | | Nyakusa N = 81 | | Zaramo N = 68 | | Minor N = 127 | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMMUNICATION | .271 | (6)* | .262 | (6) | .245 | (6) | .221 | (6) | .307 | (6) |
| KINSHIP | .373 | (4) | .300 | (5) | .446 | (3) | .400 | (4) | .348 | (5) |
| DEMOGRAPHY | .435 | (3) | .454 | (3) | .420 | (4) | .413 | (3) | .448 | (3) |
| ORGANIZATIONAL | .651 | (2) | .623 | (2) | .654 | (1) | .681 | (2) | .645 | (2) |
| ATTITUDINAL | .369 | (5) | .348 | (4) | .362 | (5) | .379 | (5) | .379 | (4) |
| KNOWLEDGE | .710 | (1) | .655 | (1) | .640 | (2) | .807 | (1) | .726 | (1) |

*Numbers in parenthesis indicate ranks.

Results of Manipulations

As indicated earlier, an attempt was made to access the sensitivity of the various communication propositions by running the model with successive deletions of the propositions. In other words, after the initial run, thirteen additional runs were made, each of which set a given proposition to "false" for all subjects.

Table 8 gives the means and standard deviations for the original run (using all thirteen propositions) and the thirteen manipulations. By examining the rank orderings, it is clear that the second, fifth, and eleventh propositions are the most sensitive to deletion. When these are omitted, the total original communication score (20.82) changes noticeably. Because the model is actually in its rudimentary stages, it would be premature to attach undue significance to these results. On the basis of the present model, however, the propositions relating to travel outside of the village locale seem extremely important when compared with the other propositions.

Since the model seemed to predict fairly well (75%) for the Nyakusa tribe, it was decided to examine the results for this group of subjects separately. The results are presented in Table 9. The most sensitive propositions are shown to be the second, the ninth, and the eleventh. The earlier interpretation seems to hold -- geographical mobility seems the most sensitive factor in the model.

Table 8. Results from Manipulation of Communication Propositions for Total Sample (N = 341)

| Manipulation No. (Proposition Dropped)* | Mean Communication Score | S.D. | Rank of Mean |
|---|---|---|---|
| No manipulation | 20.83 | 12.67 | 1 |
| 1 - Live in village | 19.82 | 11.65 | 6 |
| 2 - Regional Travel | 17.81 | 11.51 | 14 |
| 3 - Distant birth (a) | 19.61 | 12.07 | 7 |
| 4 - Distant birth (b) | 19.94 | 11.82 | 3 |
| 5 - Capital visit (a) | 17.95 | 11.87 | 13 |
| 6 - Capital visit (b) | 19.85 | 12.09 | 5 |
| 7 - Capital visit (c) | 19.30 | 11.99 | 8 |
| 8 - Labor migration (a) | 20.40 | 12.16 | 2 |
| 9 - Labor migration (b) | 18.96 | 12.04 | 10 |
| 10 - Radio exposure | 19.12 | 11.17 | 9 |
| 11 - Village center | 18.34 | 12.62 | 12 |
| 12 - Stay in village | 19.94 | 12.06 | 4 |
| 13 - Bicycle | 18.43 | 11.83 | 11 |

*The complete wording of the propositions can be found in Chapter III.

Table 9. Results from Manipulation of Communication Propositions for Nyakusa Tribe (N = 81)

| Manipulation No. (Proposition Dropped)* | Mean Communication Score | S.D. | Rank of Mean |
|---|---|---|---|
| None | 18.89 | 12.00 | 1 |
| 1 | 18.27 | 11.28 | 5 |
| 2 | 15.11 | 10.74 | 14 |
| 3 | 18.89 | 12.00 | 2 |
| 4 | 18.83 | 12.02 | 3 |
| 5 | 17.53 | 10.72 | 9 |
| 6 | 18.07 | 11.32 | 6 |
| 7 | 17.59 | 11.39 | 8 |
| 8 | 18.37 | 11.34 | 4 |
| 9 | 15.78 | 11.28 | 13 |
| 10 | 17.48 | 10.39 | 10 |
| 11 | 16.47 | 11.93 | 12 |
| 12 | 17.68 | 11.51 | 7 |
| 13 | 16.59 | 10.74 | 11 |

*The complete wording of the propositions can be found in Chapter III.

# CHAPTER V

## PHASE II OF THE MODEL: DESCRIPTION AND RESULTS

The focus of this chapter is on the second part of the model. As indicated in Chapter IV, the pre-interaction phase (which was based solely on summated predispositions) correctly predicted 54% of the decisions made. The basic concern of the interaction (or influence) phase was the incorporation of additional variables and propositions which might increase this 54% predictability level. Specifically, Phase II of the model called for the incorporation of propositions relating to the processes of interpersonal communication and social influence. It is somewhat obvious that a person's predispositions, whatever their origin, are subject to change through such processes. This might be particularly true in those non-industrialized societies which are characterized by intimate, face-to-face contact.

The major purpose of the present chapter, then, is to outline conceptually the major variables presumed to operate in the influence process in the small-scale society examined. In some instances, the variables were identical to those found operating in large-scale industrialized societies; in other cases, however, some reconceptualization was necessary.

A second purpose of this chapter is to translate these conceptualizations to computer-operationalizable procedures. These procedures are specified below in more detail.

## The Interaction Phase -- Relevant Variables

There are five factors which were considered to be of crucial importance in the process of interpersonal communication and social influence, particularly as these processes operate in non-industrialized societies. These factors include: physical proximity, psychic proximity, attitude similarity, relative credibility, and socio-economic similarity.

## Physical Proximity

Festinger, Schacter, and Back (1950), in their classic study of social pressure among residents of two university dwelling units, were among the first investigators to focus on spatial ecology as a determinant of social relations. It is somewhat obvious, of course, that -- given the absence of mass media effects -- physical proximity is a necessary, if not sufficient, condition for the occurrence of social influence. In other words, people must be close to each other in order to exert any continuous influence on each other. Excluding direct mass media influence defines a very real system in most traditional East African villages. Literacy rates are often much too low to permit a wide newspaper audience; inadequate financial resources prohibit wide radio exposure and television is, of course, almost non-existent.

This is not to imply that traditional villages are completely closed systems, isolated from all external influences. What is being implied, however, is that these outside influences are minimal in relation to the effect of interpersonal relationships. Indeed, the whole notion of Gemeinschaft vis-a-vis Gessellschaft is based on this distinction (Tonnies, 1957).

While other factors (see below) undoubtedly operate so as to preclude interpersonal communication overload in traditional villages, there is still strong support for the notion that the "coolness" of the pre-literate village is of fundamental importance in assessing the processes of social influence (McLuhan, 1964). The physical layout of many traditional villages is a major factor contributing to the "total involvement" aspect of village life.

While most African villages bear little superficial resemblance to the MIT Westgate residence described by Festinger, et. al., there is the common element of residential density. Two general hypotheses follow from a knowledge of the physical ecology of a village:

Hypothesis 1: Social influence is likely to be stronger among people who live in the same village, than among people who live in different villages.

Hypothesis 2: Within a village, social influence is likely to be stronger among those who live near each other than among those living further away.

The ubiquitous phrase "all other things being equal" should be affixed to both of the above hypotheses. In addition, while both hypotheses

seem to imply that influence ipso facto follows communication, it should be emphasized that communication here is thought of as a necessary but not sufficient condition for social influence.

Psychic Proximity

"Psychic Proximity" is defined as similarity with respect to expressed self-identification. The term, as it is employed here, has not been dealt with extensively in the behavioral science literature. Operationally, psychic proximity between individuals A and B might be defined as an identical answer to the question: "What are you?" The concept itself is perhaps most relevant to those social theories which concern non-Western peoples, for it is here that self-identification seems most implastic. In general, the concept refers to ethnic, religious or, in some cases, ideological self-identification. Thus, groups such as kinship affiliated groups (e.g., families, lineages, clans), religious affiliated groups (e.g., faiths, denominations, sects) and ideologically-based groups (political parties) form the basis of psychic similarity.

In the context of this thesis the factor of psychic proximity is illustrated in the following hypotheses:

Hypothesis 3: Social influence is likely to be stronger among those who are members of the same tribes than among those belonging to different tribes.

Hypothesis 4: Social influence is likely to be stronger among those who profess the same religious faith than among those professing different faiths.

The assumption here, initially at least, was that the variables underlying the four hypotheses above were additive; i.e., a person would be more influenced by another who is both a member of his own religious group and tribal group than he would be by a person who is a member of one but not the other -- ceteris paribus.

Attitude Similarity

The third factor presumed to affect interpersonal communication was the extent to which the individual involved shared common attitudes. A distinction was made between psychic proximity and attitude similarity on the basis that the former involved objects directly related to one's self-concept whereas the latter concerned a much more inclusive set of objects. Other distinguishing characteristics include the fact that psychic proximity is much less voluntary in origin, less susceptible to change, and more easily articulated.

The relationship between shared attitudes, communication, and social influence has been dealt with extensively by Newcomb (1953) as well as other "cognitive consistency" theorists. (Festinger, 1957; Osgood and Tannenbaum, 1955). No attempt here will be made to summarize the literature (cf. Abelson, 1968).

Despite the wide attention given consistency theory, it is not necessary to accept all of its propositions in order to make the assertion that people with similar attitudes affect each other more

than people with dissimilar attitudes. Simple reinforcement theory (which seems more applicable cross-culturally) supports such hypotheses as the following:

> Hypothesis 5: Social influence is likely to be stronger among people who have similar attitudes than among people with dissimilar attitudes.

## Relative Credibility

The term "relative credibility" refers to the extent to which individuals differ with respect to their expertise regarding a particular object or idea. The person lower in (perceived) expertise is more likely to be influenced by the higher person than vice-versa.

The conceptualization of the term owes much to the pioneering research on "source credibility" done by Hovland (1953) and his associates at Yale. Source credibility is considered a prime determinant of attitude change by these and other (e.g., Berlo, 1968) researchers. The focus here is on the "expertness" component of the concept; the other major component, "trustworthiness," seems relevant chiefly in those instances in which mass communication plays a dominant role in social influence. That is to say, the "trustworthiness" dimension seems less important in traditional villages where the idea of a non-personal (or impersonal) source is relatively foreign. Perhaps the real issue is the high degree of homogeneity existing within most traditional villages, and as a result, both "trustworthiness" and "expertness" become relevant attributes only for those sources who are not part of

this homogeneity -- e.g., visiting political or administrative officials. Such an argument, however, is only as strong as its basic premise -- i.e., that villages have a high degree of homogeneity. It is likely that homogeneity among traditional villages has been vastly over-emphasized and that sheer frequency of contact is not (or should not be) equated with similarity of thought and action.

In any case, the notion of source credibility does seem to be a relational concept; recent multivariate studies make this explicit when they focus on the receiver's orientation to source attributes. Another problem with variables such as "trustworthiness," "friendliness," etc. (aside from some theoretic weaknesses) is that, in terms of the relationship between two individuals, they are less objectively ascertainable. When one deals with "expertness," on the other hand, it is possible, within limits, to find fairly objective measures (e.g., years in school) by which individuals may be relegated to "low" and "high" positions. On the basis of past research, the following hypothesis seems reasonable.:

Hypothesis 7: Social influence is likely to occur if the influencer is perceived as being relatively high in credibility.

Socio-economic Similarity

The last major variable which is hypothesized to affect communication and influence among pre-literate villagers is relative socio-economic status. Other things being equal, a person is more likely to

be influenced by somebody relatively high or equal in occupational, economic, and social status than by somebody relatively low. Conceptually, this variable is distinct from relative credibility because it is quite possible in traditional societies for "experts" to be relatively low in status and prestige. An example of such would be the so-called "witchdoctor" or Shaman (see Chapter I) -- a man inordinately expert in his field, but not necessarily the highest in terms of accorded prestige.

Statements such as the foregoing call attention to a problem which has thus far been ignored; i.e., the object-specific nature of social influence. It was Katz and Lazarsfeld (1955) who first directed attention to monmorphic vs. polymorphic opinion leadership. From what has been written above, it might be inferred that the variable "relative credibility" is peculiar to monomorphic opinion leadership, while socio-economic similarity might be more relevant to polymorphic leadership. In terms specific to the present concerns, then, it might be supposed that with respect to the choice of legal avenues for the settlement of disputes, relative credibility (i.e., expertness in relation to legal concerns) is a more important determinant of influence than status similarity. While, again, this is basically an empirical question, there is a strong argument against such a position; decisions which reflect more or less obvious choices between traditional vis-a-vis modern modes of behavior are rarely limited to the specific attributes of the alternatives. Most decisions are replete with ramifications extending far beyond the specific (in this case, legal) merits of the situation. Consequently,

high relative credibility would hardly be sufficient to induce predispositions to change in an individual. Moreover, research on opinion leadership suggests that there is some optimum level of socio-economic difference beyond which an individual ceases to be influential. Thus the following hypothesis complements rather than contradicts the last hypothesis (6):

> Hypothesis 7: Social influence is likely to occur if there is some optimum level of difference in socio-economic status.

## Construction of the Second Phase of Model

The purpose of the following paragraphs is to outline in some detail the methodology employed in the construction of the second phase of the computer model, utilizing the five variables discussed above. Subsequent discussion will be less general than that which characterized earlier portions of this chapter; attention will be focussed more on the details of the model.

While an attempt was made to utilize existing data in the construction of this part of the model, it should be noted that these data were not collected with the model in mind and, hence, several compromises were necessary.

## General Methodology

The first step was to rank order all subjects according to their Modern Decision score derived from the first phase of the model (cf. discussion in Chapter III). The total sample was then divided into

three groups of High Modern Disposed (N = 144), Low Modern Disposed (N = 145), and Non-Disposed (N = 145). All subjects and the values for variables discussed above were read into computer memory. While there were only 38 such variables relating to the process of social influence, as discussed above, space for 50 such variables was "reserved" in computer memory for calculating purposes. Thus, the computer held a 434 x 50 matrix which, conceptually, was considered as three separate matrices of the following sizes: 144 x 50, 145 x 50, and 145 x 50. Figure 6 illustrates the computer storage of these matrices.

Matrix I held those subjects having a Modern Decision Score above the sixty-sixth percentile -- the Modern Disposed villagers. Matrix II held those subjects scoring below the thirty-third percentile -- the Traditional Disposed villagers. Matrix III held those subjects who had no strong predispositions to either the modern court or the traditional court. Subjects in Matrices I and II were termed "influentials" since they had the cognitive capacity to influence the non-disposed. The latter group, represented in Matrix II, were termed "influencees;" i.e., those capable of being influenced in one direction or the other.

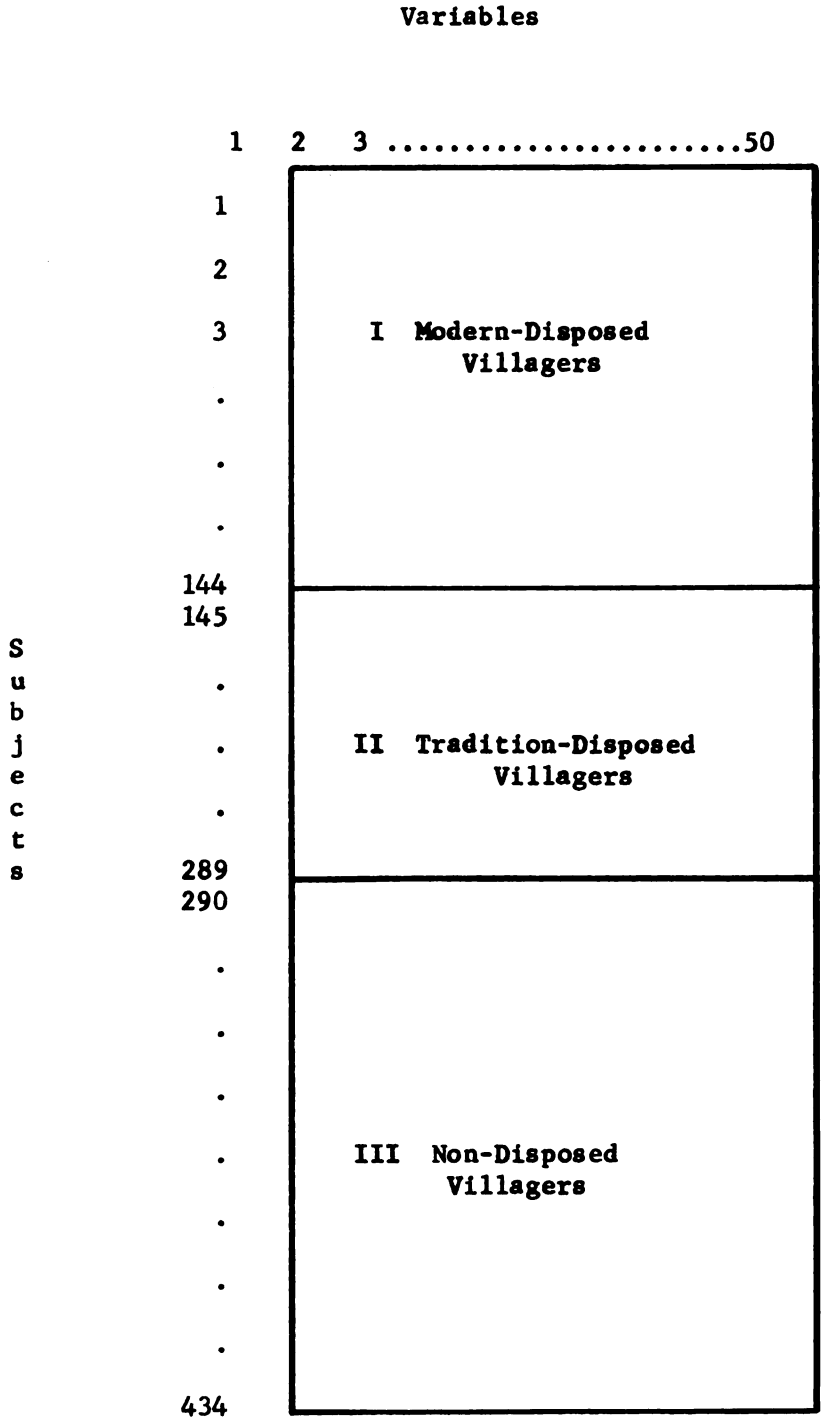



Figure 6. Conceptualization of Computer Memory Location for a 434 x 50 Matrix Divided into Three Smaller Matrices

## Description of Variables

Each subject's vector consisted of the following variables:

| Name | Value Range | Number | |
|---|---|---|---|
| Subject Identification | 1-434 | 1 | (1) |
| Psychic Proximity Variables | | | |
| Tribal Affiliation | 1-4 | 2 | (13) |
| Religious Affiliation | 1-3 | 3 | (15) |
| Physical Proximity | | | |
| Village Residence | 1-14 | 14 | (144) |
| Villager Center | 1-5 | 11 | (1) |
| Attitude Similarity | | | |
| Village problems | 1-17 | 12 | (31) |
| Obedience | 1-3 | 17 | (22) |
| Future | 1-3 | 18 | (23) |
| Women | 1-3 | 19 | (24) |
| Evil | 1-3 | 20 | (25) |
| Magic | 1-3 | 21 | (26) |
| Government | 1-3 | 22 | (27) |
| Change in job | 1-3 | 23 | (53) |
| Marriage | 1-3 | 24 | (20) |
| Agriculture | 1-3 | 25 | (21) |
| Politics | 1-3 | 26 | (30) |
| New ways best | 1-3 | 27 | (28) |
| Relative Credibility - Knowledge | | | |
| Of chief | 1-6 | 28 | (32) |
| Of country's name | 1-2 | 29 | (56) |
| Of president's name | 1-2 | 30 | (57) |
| Of vice-president's name | 1-2 | 31 | (58) |
| Of regional commissioner | 1-2 | 32 | (59) |
| Of area commissioner | 1-2 | 33 | (60) |
| Of political officials | 1-3 | 34 | (66) |
| Of economic plans | 1-7 | 35 | (40) |

*Numbers in parenthesis indicate item number on questionnaire (cf. Appendix C) questionnaire items and variables are not always identical since substantial re-coding was done.

| Name | Value Range | Number | |
|---|---|---|---|
| Socio-Economic Similarity | | | |
| Years of education | 0-15 | 4 | (8) |
| Number of wives | 0-4 | 5 | (16) |
| Occupational mobility | 1-4 | 6 | (5) |
| Party membership | 1-3 | 7 | (19) |
| Average income | 1-9 | 8 | (39) |
| Income stability | 1-9 | 9 | (39) |
| Relation to chief | 0-2 | 10 | (13) |
| Occupation | 0-51 | 13 | (2) |
| Age | 18-75 | 15 | (1) |

The dependent variable (Number 16) was the response given to the open-ended question: "To whom do you go to settle disputes?" The variable was coded dichotomously to represent traditional vis-a-vis modern courts. A final variable (Number 38) represented the subject's predisposition score derived from the summated propositions of the model's preinteraction phase. The full wording of the questions designed to tap these variables can be found in Appendix C.

The variables listed above were selected from a larger number on the basis of their applicability to the eight hypothesis presented earlier. In some cases the data represent fairly good measures of the relevant variables; in other cases, however, the data are not available or are poorly represented.

The next step in the building of the influence phase of the model was to write more explicit propositions regarding the processes of social influence, utilizing the available data. The propositions again took the form of "logical if" statements written in FORTRAN computer language.

As indicated in Chapter III, this type of statement tells the computer to examine the truth of a particular phrase and then to do something depending upon the results of that examination. An example follows:

```
 1  If (X(1,1).EQ.1) GO to 10
 2  GO TO 11
10  X(25) = 60.0 + X(2,5)
11  CONTINUE
```

FORTRAN statement number one tells the computer to examine cell (1,1) in the 434 x 50 matrix and if the contents are equal (.EQ.) to 1, to then go to statement number 10. If the contents of cell (1,1) are not equal to 1, control of the computer is passed on to the next statement (number 2) which, in turn, passes control to statement 11. (In the absence of instructions to the contrary, the computer moves sequentially from one statement to the next, regardless of the number of the statement.) If, in the example above, control is passed to statement 10 (which is identical to saying that the contents of cell (1,1) are equal to 1) the contents of the c-mputer location holding variable number 5 is increased by 60.0. Control of the computer is then moved to statement number 11 and on to the remainder of the program. In general, the operation of the computer can be likened to a man who holds a deck of numbered IBM cards and follows the precise instructions written on each card (in much the same way as MONOPOLY is played). This man also holds a pencil and numerous scratch pads for the various calculations demanded of him.

The sequence of instructions listed on the preceding pages is somewhat abstract. To take an example used in the actual program, consider the statement below:

```
IF (X(I,11).EQ. X(J,38)) X(I,38) = X(I,38) + X(J,38)
```

The letters I and J represent subjects in Matrix I (Modern Disposed subjects) and Matrix III (Non-Disposed subjects), respectively. The statement above thus instructs the computer to examine cells (I,11) and (J,11) and if they are equal, change cell (I,38) to the value of its present contents plus the value of cell (J,38) to the value of its present contents plus the value of cell (J,38). Variable number 11, it is recalled, is a "physical proximity" variable. Actually, it is a measure of the distance a villager's house is from the village well. What the statement above says, in effect, is "compare how far subject number I (an influential) and subject number J (an influencee) are from the village well (they were tested earlier to see whether they resided in the same village); if they are equal distances from it, assume that they will contact each other and the influencee will be influenced by the influential; accordingly, change the influencee's Modern Disposition Score (stored in cell (J,38)) to its old value plus the current value of the influential (which is stored in I,38)." The I and J are indices which can be set to vary by the programmer. In the present case, we want I to be set to 1, then 2, etc. to 144 and for J to be set to 290, then 291, etc. to 434. These integers correspond to the subjects stored in matrices I and III; subsequent instructions deal with a comparison of

matrices I and II, and then II and III. In general, then, the computer is told to compare all influencees with all influentials across all variables. After an influencee has been compared with all Modern-Disposed (i.e., the index I running from 1 to 144) he is given a "new" modern score. This new score is the average score derived from the total number of "matches." This "modern influence" score and a number indicating the actual frequency of matches across all variables are held in computer memory in two of the twelve reserved storage locations. The computer then changes the "I-index" to run from 145 to 289 -- comparing each influencee with each Traditional-Disposed villager. Two similar scores are derived.

In order to determine whether and what kind of influence has been exerted, the computer compared the two totals (modern influence score bs. traditional influence score) and then checked to see which one (for each subject) had the greater number of matches. A sample of criterion measures (real data) is presented below:

| | Amount of Modern-Influence | | | Amount of Traditional-Influence | | |
|---|---|---|---|---|---|---|
| Subject No. | No. Machines | Sum | Avg. | No. Matches | Sum | Avg. |
| 378 | 2428 | 366738 | 151 | 2346 | 168912 | 72 |

In this example, subject number 378 changes from being relatively Non-Disposed to being fairly strongly Modern-Disposed; his new score is 151 out of a possible 184. If he had more traditional matches, he would have been given a new score of 72 -- the average of the Traditional-

Disposed influence. An indication of the magnitude of the change can be acquired through a comparison of the subject's "old score" (pre-interaction phase of the model) with the one predicted by the interaction propositions (the difference for subject number 378 is 151-93 = 58). The accuracy of the model's predictions rested on whether the predicted change scores of the influencees were significantly better than those yielded in Phase I.

Before concluding this description of the computer operation, it should be pointed out that the examples used thus far refer only to the equality (.EQ.) of values. Actually, the model utilized all the flexibility offered by the computer. For example, it also tested for at least some of the following conditions:

1. Whether one variable is greater than another. (.GT.)
2. Whether one variable is less than another. (.LT.)
3. Whether one variable is greater than or equal to another variable. (.GE.)
4. Whether one variable is less than or equal to another variable. (.LE.)
5. Whether or not two or more conditions are met. (.AND.)
6. Whether one or the other condition is met. (.OR.)

A specific example of this flexibility follows.

It was known that members of the Hyakusa tribe were formerly residents of "age villages" -- villagers tended to live with people born in their own generation (Wilson, 1951). While this practice has largely died out, there are enough remnants of it to suspect that members of this tribe -- particularly the older ones -- are more susceptible to influence from age peers than are members of non-age-based

tribes. Using the logic - testing ability of the computer, it was possible to program the following influence sequence. (The sequence, incidentally, falls under the general rubric of "socio-economic similarity" -- see page 93).

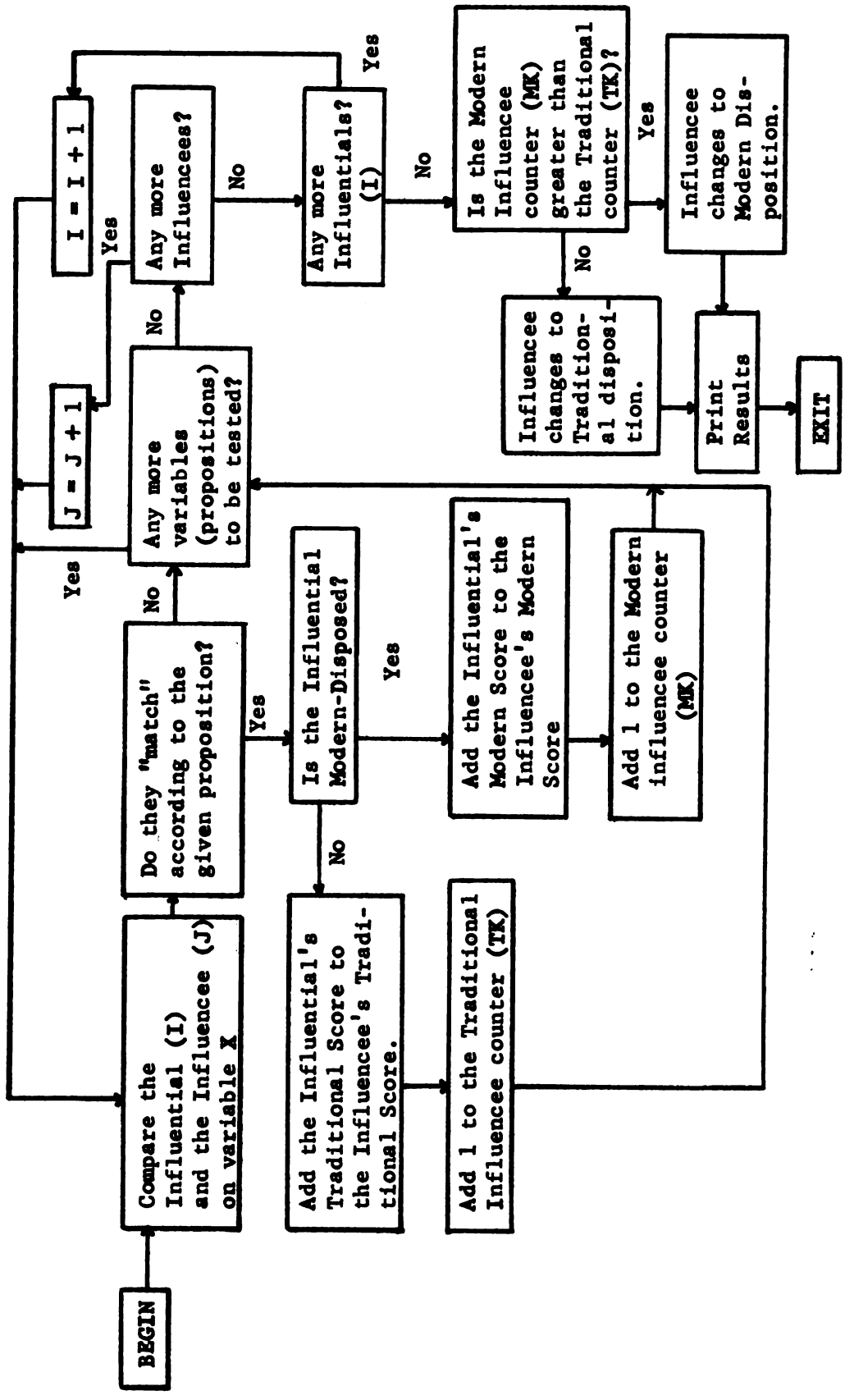
1. If an influential and an influencee are both members of the Nyakusa tribe,

2. And if the influential and the influencee are both over 45 years of age,

3. And if the influential is older than the influencee,

4. Then, the influencee will be influenced by the influential (the influencee will have the influential's midern or traditional score added to his own.

The above sequence of logical tests illustrates the kind of testing performed by the computer in phase 2. The present model is rather modest -- the sequence above is atypical. In most cases, only one condition was tested (i.e., interactions were ignored) and most of these were tests of equality (in terms of attitudes, residence, etc.) In general, there is one statement type for each of the 37 variables. The major aim here was to start out with a rather simple model and then build in the complexity as required. Flowchart II summarizes the over-all operation of the second phase of the model. Flowcharts II-A, II-B, II-C, II-D, II-E describe the specific operation with regard to the factors of Physical Proximity, Psychic Proximity, Attitude Similarity, Relative Credibility, and Socio-Economic Similarity, respectively. The words Pre-Disposed and "influencer" are used interchangeably in the flowcharts, as are the words "Non-disposed" and "influencee." Flowchart II-F illustrates the calculation of the total post-interaction scores.




Flowchart II. Interaction - Phase II

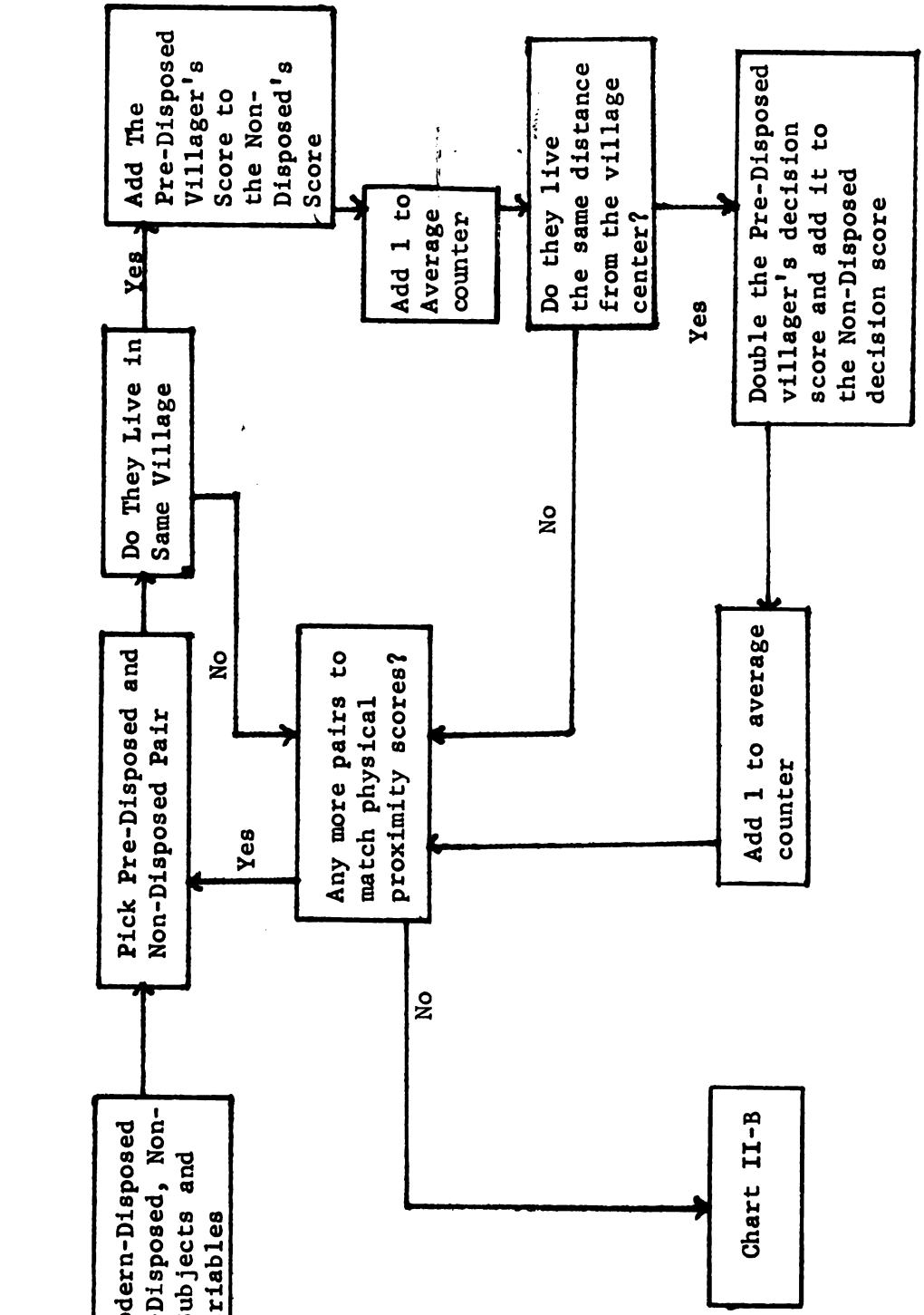



Chart II-A. Physical Proximity

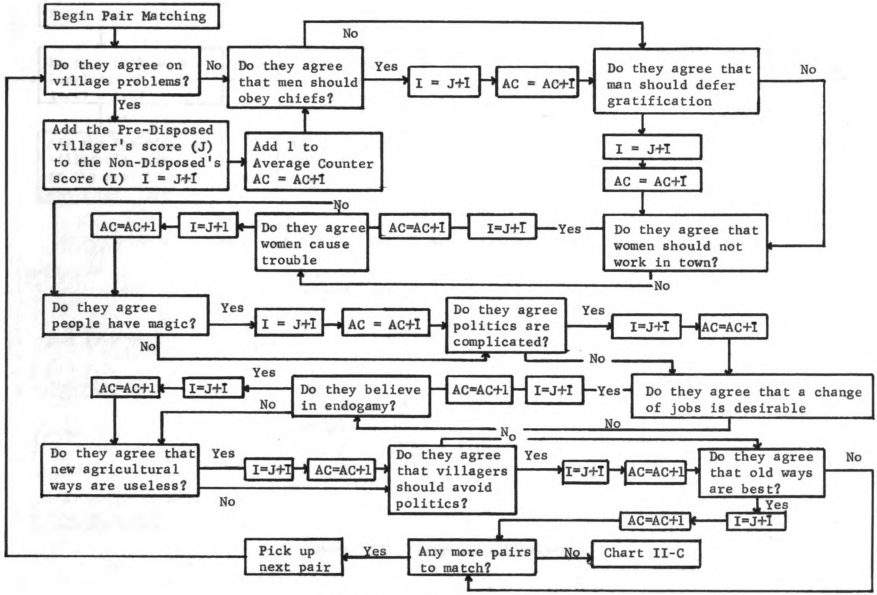



**Chart II-B. Attitude Similarity**

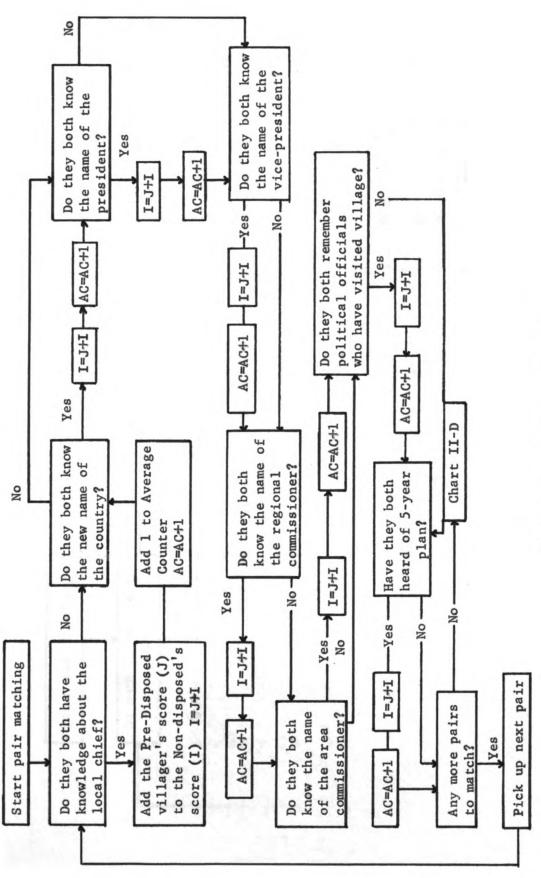



**Chart II-C. Competence Similarity**

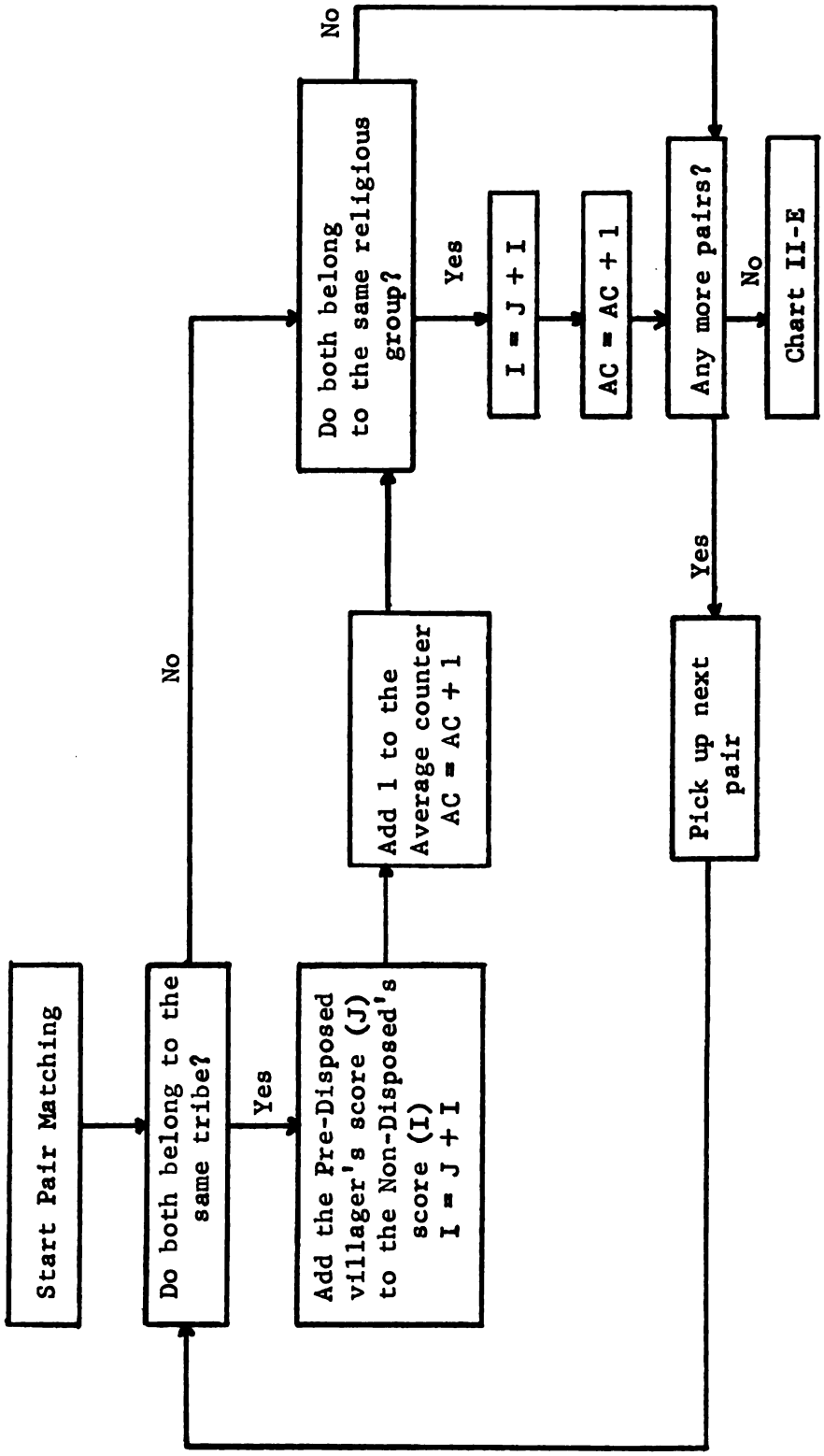



Chart II-D. Psychic Similarity

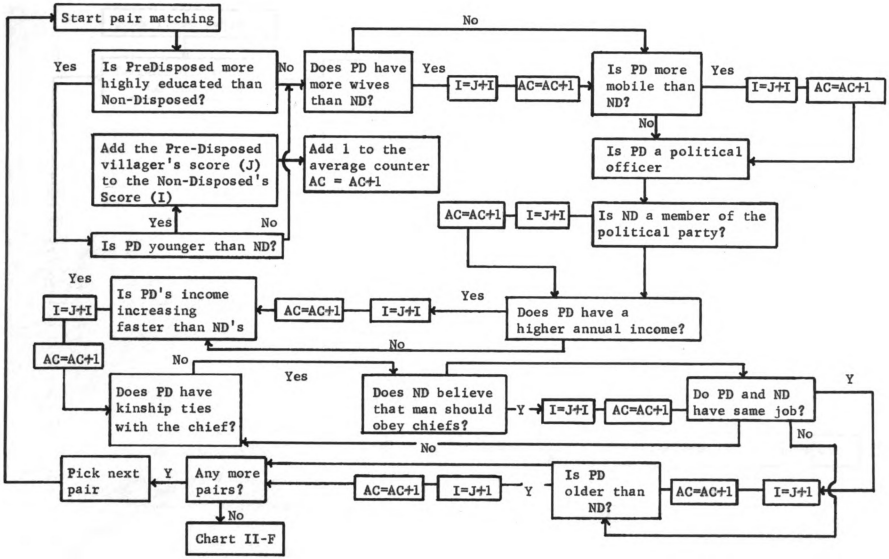



**Chart II-E. Status Similarity**

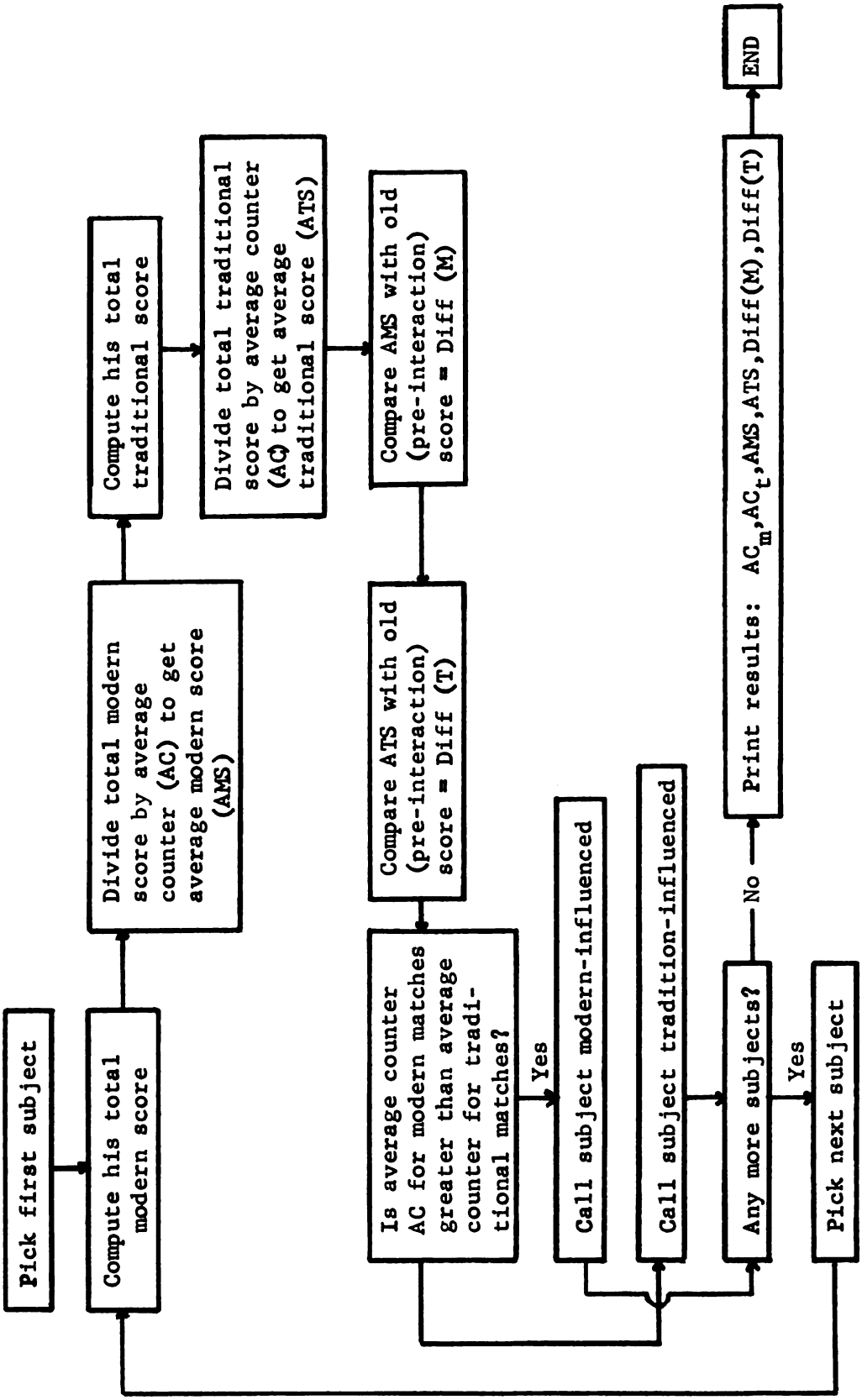



Chart II-F. Calculation of Post-Interaction Results

Results of the Interaction Phase

As indicated earlier, it was predicted that incorporation of the influence model would increase prediction by changing the non-Disposed to either Modern or Tradition disposed. Table 10 shows the predicted vs. observed decisions for the middle third group prior to the influence process (i.e., these are analogous to "before" scores in the experimental situation.)

Table 10 shows more vividly the "tradition-bias" of the pre-interaction or predisposition model. The data in Table 10 are for only a third of the sample -- those scores in the middle third of the total sample distribution. According to the predisposition model, all 113 of this group are predicted to make a traditional decision. Actually, however, only half of them did so (59 out of 113 for a percentage of .52).

The major purpose for the building of an interaction model was to attempt to improve upon this chance level of predictability. Comparison of Tables 10 and 11 shows the results of this attempt.

The most striking fact from the data in Table 11 is that the interaction model has counteracted the "tradition-bias" exhibited in the predisposition model. Over 70% (81 out of 113) of the sample is predicted to make a modern decision. There is still substantial error, however, for, as indicated above, only about half of them actually did so. Yet this error is less than half (.23) that derived from the pre-interaction model (.48). The overall accuracy level of the interaction model is 66 correct out of 113 for a percentage of .58. This .58 percent, as expected, is an improvement over the .52 percent predicted by the pre-interaction model -- but the improvement is less than was

anticipated.*

*Appendix D contains a listing of the pre and post-interaction scores for all subjects.

Table 10. Predictions for Non-disposed Subjects According to Predispositional Model

| | Pre-Interaction (Predisposition) Model | | | |
|---|---|---|---|---|
| | Modern | Decision | Traditional | Decision |
| | f | % | f | % |
| Predicted | 0 | .00 | 113 | 1.00 |
| Observed | 54 | .48 | 59 | .52 |
| Error | 54 | .48 | 54 | .48 |

Table 11. Predictions for Non-disposed Subjects According to Interaction Model

| | Interaction Model | | | |
|---|---|---|---|---|
| | Modern | Decision | Traditional | Decision |
| | f | % | f | % |
| Predicted | 81 | .71 | 32 | .29 |
| Observed | 54 | .48 | 59 | .52 |
| Error | 27 | .23 | 27 | .23 |

# CHAPTER VI

## SUMMARY AND IMPLICATIONS

The purpose of this chapter is to summarize the major findings of the computer models described in preceding pages and to discuss the general theoretic and methodological implications of the thesis.

This thesis had as its major objectives (1) the explicit recognition of man as an information processing system and, in addition (2) the indication of how such a recognition could be useful in the socio-psychological study of political and social modernization. In this context, three basic stages of human behavior were examined: (1) information processing, (2) social interaction and (3) decision-making. Two computer models were described, both of which were constructed so as to represent one of the two stages in an independent variable fashion; the actual decision-making was treated as part of the second model in terms of a dependent variable.

The first stage was concerned with an individual's processing of information which took the form of a legal dispute. An individual was hypothesized to arrive at certain predispositional stages as a function of the relationship between the states of the input variable (dispute) and certain status characteristics. These status characteristics were grouped under the following factors:

Communication, Kinship, Demography, Organizational, Attitudinal, and Knowledge.

The computer program constructed to represent the first stage took as input a dispute which had a given value with respect to its economic importance and its relation to kinship concerns. Each individual in the sample was examined so as to determine his overall pre-interaction disposition state. Preliminary results were calculated at the end of this first stage. The model indicated that out of 341 subjects, 68 were predisposed to output a modern legal decision and the remainder (273) a traditional decision. When compared with actual observed decision, these results represented an overall accuracy level of 54%.

The second stage -- the social interaction process -- was represented in a computer program which divided the subjects into three separate groups, on the basis of the strength of the predispositions as calculated in the first stage. Those individuals who were strongly predisposed (i.e., those who fall in the upper or lower third percentile in the range of modern scores) were termed potential "influencers." The remaining third -- the nondisposed -- were considered to be susceptible to persuasion and were thus termed "influencees." It was hypothesized that through the process of social interaction the "influencers" would influence the "influencees" in such a way as to increase the overall predictability level of the earlier program. According to the results of the first stage, all 113 of

the nondisposed (or "influencees") would, on the basis of a mean dichotomy, make a traditional decision. In fact, however, only 59 of them made such a decision -- thus the preinteraction model was operating at a 52% predictability level with respect to this middle third percentile group of respondents. When, however, these same individuals were subjected to influence by the remaining two-thirds of the sample, 81 were predicted to make modern decisions and 32 to make traditional decisions; the observed frequencies were 44 and 22 respectively. This 65 correct out of a possible 113 represented an accuracy level of 58% -- an increase of 6% over stage I predictions.

While such an increase is barely perceptible and might be attributed to chance factors, it is at least an increase and not a decrease and thus offers some encouragement for further efforts. Some possibilities in this regard are discussed in more detail below.

## Some Theoretical and Methodological Considerations

This thesis has provided a conceptual framework through which certain problems of political and social modernization may be viewed. Implicit in this scheme was the notion that a current problem of many less-developed countries is not so much the establishment of modern institutions but, rather, the maintenance of those which already exist. Such an assumption has important implications for social research in developing countries, particularly that research which is concerned with communication processes. Most important in this regard is the emphasis which is directed towards the analysis of

social institutions, rather than on the establishment of them, the researcher is forced to come to grips with the notion of process. A process can be defined as a "movement of energy from one state to another or from one point to another over space." (Miller, 1965). When this energy is in the form of information, the process is called communication. The type of energy or information discussed in preceding chapters was (following Easton) called "political support." Thus one can say that support, since it is basically information, is fundamental to all living systems and, correspondingly, the maintenance of every living system can be viewed as a problem of communication.

The conception of "communication" suggested in the above paragraph is somewhat different from the traditional definition as employed in earlier sections of this thesis. What is different is that as employed in the above paragraph, the information moved is largely uncoded information or, more generally, stimuli. Specifically, the information is support generated through decision-making behavior. The traditional usage of the term communication deals primarily with coded information (which is primarily written or spoken).

The thesis presented here has employed both conceptions of communication although, up to now, mention has been made of the more classical usage; i.e., communication behavior of individuals was viewed in terms of information gathering and the relationship of this information gathering to decision making. It should be clear, however, that there is no necessary conflict between the two usages. The differences between the two seems most evident when the concepts

"systems" and "environment" are considered. In other words, when support is considered as information and the decision-making act is considered as the transmission of this information, one can speak of communication from one subsystem (an individual) to another (the political system or subsystem). When, on the other hand, the classical usage of the term is employed, one still deals with the individual as a system but in this case the individual is largely the recipient (rather than the source) of the information. Figure 7 illustrates what is meant here:

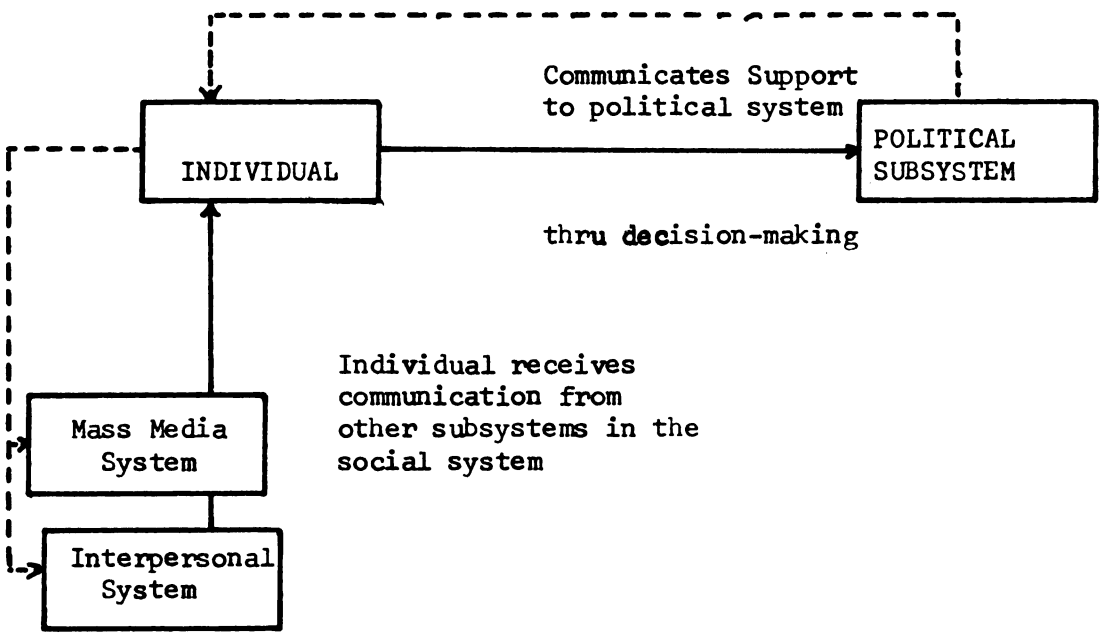



Figure 7. Two Kinds of Communication

These systems are not closed systems; i.e., there are additional inputs from the environment as well as feedback loops (shown in dotted lines). The diagram serves to illustrate the two uses of the term "communication," and it seems that the difference is more apparent than real. In any case, the fundamental role which communication processes play is clearly evident in the analysis of any social system.

Typically, communication research has focussed solely on the first leg of what is essentially a multi-legged process. The usual focus has been on the transmission of information from mass media or interpersonal systems to the individual system. From that point an examination is usually made of the effects on this system arising from exposure to information -- e.g., attitude change, increases in knowledge, etc.* Only a few researchers working in the cross-cultural area (e.g., the "diffusionists") have carried research efforts to the second leg of the communication process (represented in the upper right hand corner of Figure 3). Rogers (1962), for example, has focussed on the behavioral consequences of the communication process (i.e., adoption). The adoption of an innovation is in many ways similar to the making of a decision supportive of a particular system. For the most part, however, social research has limited itself to a demonstration of cognitive effects -- effects which may

---

*The distinction made here between the two kinds of communication or information is quite similar to that made by Gerald Miller (1968) in his investigation of individual systems.

or may not result in corresponding overt manifestations. (Cf. Festinger, 1964).

The major theoretical importance of the thesis presented here might be considered in terms of the avenues for research suggested by its concentration on decision-making as an overt manifestation of (a) information input and (b) information output. The use of a systems framework, together with the decision-making context, makes a marriage between the microscopic levels of analysis and the macroscopic levels not only possible but extremely fruitful. Moreover, the emphasis on man as an information processor (i.e., as a receiver, manipulator, storer, and sender of information) is consistent with modern sociological and psychological theory (G. Miller, 1968; Schroder, et. al., 1967). The emphasis on decision-making also permits analysis along more classical decision lines; i.e., a consideration of such factors as risk, uncertainty, subjective probability, etc., as well as the more formal concepts of game theory. (Cf. Luce and Raiffa, 1958).

The present study was limited in part because, as is often the case, much of the conceptualization was undertaken after data had been collected. It is therefore useful to indicate, specifically, the area in which the lack of data is most crucial, and to suggest the types of data needed in this connection.

First of all, it would be desirable, with respect to input variables, to have more data regarding the nature and frequency of

disputes. The nature of a dispute refers to the various dimensions (such as the economic and kin-related ones discussed earlier) which affect the predispositions of the individual possessing the dispute. A measure of the frequency would provide the time dimension necessary for true analysis of social processes.

With regard to the transformation variables, the measures used in the present study were, by and large, adequate. Ideally, however, it would be desirable to have additional measures tapping certain attitudinal dimensions -- particularly those attitudes relating to the dispute under consideration. Considering the economic dimension of the dispute -- the items used here are not unsatisfactory. With respect to the other dimension, however, the present study was lacking in the number and sensitivity of items which would tap kinship bonds. Future research using this dimension of a dispute should include such variables as the type of lineage system a person belongs to, the number of relatives living in a village, etc.

The above comments should not be interpreted as implying that it is always necessary to have an a priori one-to-one correspondence between dimensions of input variables and the status characteristics. Such correspondences do, however, suggest some uncomplicated types of relationships. Figure 8 illustrates what is meant here.

| INPUT VARIABLES | STATUS VARIABLES | OUTPUT VARIABLES |
|---|---|---|
| X(1) | Y(1) | Z(1) |
| Economic Dimension | Economic Attitudes | Decision |

Figure 8. Correspondence between Input Variables and Status Variables

An example of an "uncomplicated" type of relationship would be a simple linear relationship between the X variable and the Z variable with the effect of Y, the transformation (or status) variable, increasing or decreasing the value of Z in a consistent manner. This conception is, admittedly, a rather crude approximation to the classical systems analysis mode. The purpose here is to illustrate these points for conceptual, rather than methodological purposes. By "conceptual" in this context is meant a concern with the identification of the type of variables needed in order to best study the problem under consideration.

The final variable classification -- the output variable -- was identified as the decision to resolve the dispute in one of two ways; i.e., through modern or traditional courts. It should be clear, however, that this modern/traditional dichotomy is, to a large

extent, an artificial distinction which is more realistic in some societies than others. It would be quite reasonable in some societies, for example, to have as many as three or four separate values of the dependent variable (i.e., different court systems).

It should be clear, also, that the conceptual scheme presented in this thesis can be applied to decision-making situations other than legal dispute settlement. While there is likely to be variation from one society to another, it is equally likely that a class of such decisions situations can be derived which will be generally applicable to the study system maintenance. In the first part of this thesis the example of a man having to choose between modern medical facilities and traditional facilities was raised. Another decision-making situation concerned the naming of a new child. What is needed now is an exhaustive inventory of other such situations. The important criteria for selection is that the two choices represent different "modernization orientations" and that they be socially significant enough to warrant the investigator's attention. Given, then, a group of such modern vs. traditional decision-making contexts, the following research questions present themselves:

1. What are the dimensions of the input variables which affect decision-making?
2. What transformation variables are important?
3. What environmental factors influence decision-making?

4. What is the relationship between the action taken by the representatives of each subsystem and the subsequent decisions made by the individual? I.e., what is the role of information feedback?

5. How much information (support) is needed to maintain modern institutions? Must all citizens make modern decisions or it is enough that only certain citizens do so?

6. What are the patterns of communication between subsystems? Will they "agree" to change the zero sum game to a non-zero sum game? Under what conditions?

7. What is the effect of the nature of the input variable on the social interaction patterns which occur prior to decision making? E.g., are some disputes considered outside of the province of interpersonal communication?

Such questions are clearly within the province of all behavioral scientists interested in problems of political and social development, and the role of the communication researcher seems most fundamental.

## REFERENCES


Abelson, Robert. ed., Theories of Cognitive Consistency: A Sourcebook, in press, 1968.

Abrahams, R.G. The Political Organization of Unyamwezi, Cambridge, England, Cambridge University Press, 1967.

Ayoub, Victor. "Conflict Resolution and Social Reorganization in a Lebanese Village," Human Organization, Spring, 1965, 11-17.

_____. "Resolution of Conflict in a Lebanese Village," Politics in Lebanon, ed. by Leonard Binder, New York, John Wiley and Sons, 1966, 1-16.

Beattie, John. Bunyoro: An African Kingdom, New York, Holt, Rinehart, and Winston, 1960.

Berlo, David, Lemert, James, and Mertz, Robert. "Dimensions for Evaluating the Acceptability of Message Sources," Public Opinion Quarterly, in press, 1968.

Bross, Irwin. Design for Decision, New York, Macmillan, 1953.

Burke, Fred. Local Government and Politics in Uganda, Syracuse, New York, Syracuse University Press, 1964.

Cohn, Bernard. "Some Notes on Law and Change in North India," Law and Warfare: Studies in the Anthropology of Conflict, ed. by Paul Bohannan, Garden City, New York, the Natural History Press, 1967, 139-159.

Easton, David. The Political System: An Inquiry into the State of Political Science, New York, Alfred A. Knopf, 1953.

_____. "An Approach to the Analysis of Political Systems," World Politics, IX (April, 1957), 383-400.

_____. "Political Anthropology," Biennel Review of Anthropology, ed. by B. Siegal, Stanford, California, Stanford University Press, 1959, 210-262.

_____. A Systems Analysis of Political Life, New York, John Wiley, 1965a.

_____. A Framework for the Analysis of Political Life, Englewood Cliffs, New Jersey, Prentice-Hall, 1965b.

Edwards, Ward. "The Theory of Decision-making," Psychological Review, 51, 1954, 380-471.

Festinger, Leon, et. al., Social Pressures in Informal Groups, Stanford, California, Stanford University Press, 1950.

Festinger, Leon. A Theory of Cognitive Dissonance, Stanford, California, Stanford University Press, 1957.

Festinger, Leon. "Behavioral Support for Opinion Change," Public Opinion Quarterly, 28, Fall, 1964, 404-416.

Gibbs, James L. "The Kpelle Moot: A Therapeutic Model for the Informal Settlement of Disputes," Africa, XXXIII, 1963, 1-11.

Gallin, Bernard. "Conflict Resolution in Changing Chinese Society; A Taiwanese Study," Political Anthropology, ed. by Marc Swartz, Victor Turner, and Arthur Tuden, Chicago, Ill., Aldine Press, 1966, 265-274.

Hughes, Charles. "From Context to Council: Social Control Among St. Lawrence Island Eskimo," Political Anthropology, edited by Marc Swartz, Victor Turner, and Arthur Tuden, Chicago, Ill. Aldine Press, 1966, 255-265.

Hovland, Carl; Janis, Irving; and Kelley, Harold. Communication and Persuasion, New Haven, Yale University Press, 1953.

Katz, Daniel and Lazarsfeld, Paul. Personal Influence, Glencoe, Illinois, The Free Press, 1955.

Kuper, H. and Kuper, L. African Law: Adaptation and Development, Berkeley, California, University of California Press, 1965.

Lerner, Daniel, The Passing of Traditional Society, Glencoe, Illinois, The Free Press, 1958.

Luce, R. Duncan and Raiffa, Howard. Games and Decisions, New York: John Wiley and Sons, Inc., 1958.

McCall, Daniel. "Dynamics of Urbanization in Africa," Annals of the American Academy of Political and Social Science, 298, March, 1955, 151-160.

McLuhan, Marshall. Understanding Media: The Extensions of Man, New York, McGraw-Hill, 1964.

March, James. "Some Recent Substantive and Methodological Developments in the Theory of Organizational Decision-making," Essays on the Behavioral Study of Politics, edited by Austin Ranney, Urbana, Illinois, University of Illinois, 1962.

Miller, Gerald. "Human Information Processing: Some Research Guidelines," Paper presented at SAA-USDE, New Orleans, 1968.

Miller, James. "Living Systems: Basic Concepts: Behavioral Science, 10 (3), 1965, 193-237.

Newcomb, Theodore. "An Approach to the Study of Communicative Acts," Psychological Review, 60, 1953, 393-404.

Osgood, Charles and Tannenbaum, Percy. "The Principle of Congruity in the Prediction of Attitude Change," Psychological Review, 62, 1955, 42-55.

Parsons, Talcott and Shils, Edward. Toward a General Theory of Action, New York, Harper and Row, 1951.

Rogers, Everett. The Diffusion of Innovations, Glencoe, Illinois, The Free Press, 1962.

Rokeach, Milton. "A Theory of Organization and Change within Value and Attitude Systems," Paper presented to the Society for the Psychological Study of Social Issues, the American Psychological Association, September 2, 1967.

Schroder, H.M. et. al. Human Information Processing, New York, Holt, 1967.

Simmel, Georg. The Web of Group Affiliations, translated by Reinhard Bendix, Glencoe, Illinois, The Free Press, 1955.

Radcliffe-Brown, A.R. and Forde, Daryll. African Systems of Kinship and Marriage, London, England, Oxford University Press, 1964.

Tanner, R.E.S. "The Selective Use of Legal Systems in East Africa," East African Institute of Social Research Conference Papers, January, 1966.

Tonnies, Ferdinand. Gemeinschaft and Gesellachaft, trans. and edited by Charles Loomis, East Lansing, Michigan, Michigan State University Press, 1957.

Wilson, Monica. Good Company: A Study of Nyakusa Age Villages, Boston, Mass., Beacon Press, 1951.

# APPENDIX A

## SURVEY QUESTIONNAIRE

QUESTIONNAIRE
(Interviewer Administered)

Project Director: Norman N. Miller
Department of Political Science
Michigan State University

A. Demographic Information

1. Name of Respondent: _____ Date _____
2. Employer _____
3. Time in Position _____
4. Time with Employers _____
5. Number of transfers in job _____
6. Type of other jobs held _____
7. Time spent in other jobs _____
8. Years of education _____
9. Type of school attended _____
10. Has respondent any other education? _____
11. Where has respondent travelled? _____
12. District of birth _____ Date _____
13. Tribal affiliation _____
14. Parent's occupation _____
15. Religious preference _____
16. Marital status _____
17. Number of children _____
18. Length of separation _____
19. Organizational membership Length Office
    (a) Political party _____
    (b) Labor union _____
    (c) Economic association _____

## B. Attitudinal Information

A = Agree U = Uncertain D = Disagree

20. A man should only marry a wife from his own tribe A U D

21. New agricultural ways will not improve the crops A U D

22. A man should always obey his traditional chief A U D

23. Would you prefer to be given a small sum of money now, rather than be promised a large sum of money one year from now? Now Later

24. Women should stay at home and not go to town to work. A U D

25. Women cause a lot of trouble and bring evil. A U D

26. People have within their power the ability to bring harm and misfortune to others through magic. A U D

27. Government matters, and politics, are so complicated that the average man cannot really understand what is going on. A U D

28. The old ways are best and new changes should be avoided. A U D

29. The government is doing all it can to develop the country. A U D

30. Political matters should be left to government officials and village people should not become involved. A U D

31. In your opinion, what is the most important problem facing the village?

(a) taxes
(b) lack of tools
(c) lack of educational facilities
(d) unemployment
(e) other _____

32. What is the chief's name? _____

33. What job does he have now? _____

34. Where is he living now? _____

35. What is the purpose of the 1-family plan? _____

36. To whom do you go to settle your disputes? _____

37. How many times in the last year have you spoken or written a letter to the TANU chairman about one of your problems? _____

_____ What kind of problem? _____

38. What would you like to be doing five years from now?

_____

39. How much money do you expect to make in five years times?

_____

40. Have you heard about the five-year plan? _____
(If yes) From whom? _____

41. Why did you join TANU? _____

42. Did you join the first time you were asked? _____

43. Who asked you to join? _____

44. Do you expect to stay in your present location for the rest of your life? _____

45. How many children do you have between five and eighteen? _____

46. How many are in school? _____

47. Why aren't the others in school? _____

48. Is it important to send children to school? _____

49. Why? _____ (or) Why not? _____

50. What should the government do for the people of your village?

_____

51. What has the Government done for the people of your village during the past five years?

_____

52. How happy are you in your work?

(a) very happy
(b) somewhat happy
(c) somewhat unhappy
(d) very unhappy
(e) don't know

53. What job would you do if you could change your work?

_____

54. If you had more money to spend what would you buy first? _____

    Second? _____

55. Would you like to go to Dar es Salaam? _____

56. What is the new name of the Republic? _____

57. Who is the President? _____

58. Who is the vice-President? _____

59. Who is the Regional Commissioner? _____

60. Who is the Area Commissioner? _____

61. How many times did you go to the _____
    (the district capital) last month? _____
    last year? _____

62. How many members of your family work outside this village?

_____

63. Where do they work? _____

64. What kind of work do they do? _____

65. Do they send money back to your home? _____

66. How many visiting TANU officials can you remember in the last five years? _____

67. What does TANU do for the people? _____

# APPENDIX B

## SURVEY SCORES OF INFLUENCES

Table 12. Summary Scores of Subjects Influenced in a Traditional Direction

| SUBJECT NUMBER | PRE-INTERACTION (PREDISPOSITION SCORE) | POST-INTERACTION SCORE | DIFFERENCE | POST-INTERACTION PREDICTED DECISION | OBSERVED DECISION |
|---|---|---|---|---|---|
| 259 | 91 | 71 | 20 | T | T* |
| 22 | 91 | 71 | 20 | T | M |
| 27 | 91 | 72 | 19 | T | M |
| 179 | 93 | 69 | 24 | T | M |
| 195 | 94 | 69 | 25 | T | T* |
| 274 | 94 | 70 | 24 | T | T* |
| 214 | 94 | 70 | 24 | T | T* |
| 212 | 95 | 71 | 24 | T | M |
| 216 | 96 | 71 | 25 | T | T* |
| 165 | 96 | 69 | 27 | T | M |
| 226 | 97 | 69 | 28 | T | T* |
| 181 | 99 | 69 | 30 | T | T* |
| 230 | 100 | 70 | 30 | T | T* |
| 26 | 100 | 72 | 28 | T | M |
| 202 | 100 | 70 | 30 | T | T* |
| 254 | 101 | 70 | 31 | T | M |
| 58 | 101 | 72 | 29 | T | M |
| 193 | 101 | 69 | 32 | T | T* |
| 262 | 103 | 69 | 34 | T | T* |
| 197 | 104 | 71 | 33 | T | T* |
| 53 | 104 | 70 | 34 | T | T* |
| 166 | 105 | 69 | 36 | T | T* |
| 304 | 108 | 72 | 36 | T | T* |
| 340 | 108 | 72 | 36 | T | M |
| 225 | 108 | 70 | 38 | T | T* |
| 247 | 109 | 72 | 37 | T | T* |
| 200 | 109 | 68 | 41 | T | M |
| 257 | 112 | 71 | 41 | T | T* |
| 272 | 112 | 71 | 41 | T | T* |
| 190 | 112 | 71 | 41 | T | T* |
| 422 | 117 | 72 | 45 | T | T* |
| 387 | 121 | 71 | 50 | T | T* |

*= correct prediction from interaction model

Table 13. Summary Scores of Subjects Influenced in a Modern Direction

| SUBJECT NUMBER | PRE-INTERACTION (PREDISPOSITION SCORE) | POST-INTERACTION SCORE | DIFFERENCE | POST-INTERACTION PREDICTED DECISION | OBSERVED DECISION |
|---|---|---|---|---|---|
| 50 | 91 | 141 | | | |
| 43 | 92 | 142 | 50 | M | M* |
| 156 | 92 | 140 | 48 | M | T. |
| 378 | 93 | 151 | 58 | M | M* |
| 56 | 93 | 152 | 59 | M | M* |
| 376 | 95 | 153 | 58 | M | M* |
| 275 | 96 | 141 | 55 | M | T |
| 23 | 96 | 140 | 44 | M | M |
| 350 | 98 | 156 | 58 | M | T |
| 423 | 98 | 150 | 52 | M | M* |
| 24 | 98 | 140 | 42 | M | M* |
| 108 | 98 | 150 | 52 | M | T |
| 71 | 99 | 142 | 43 | M | M |
| 105 | 100 | 151 | 51 | M | T |
| 85 | 100 | 154 | 54 | M | M* |
| 91 | 100 | 141 | 41 | M | T |
| 364 | 101 | 152 | 51 | M | M* |
| 46 | 101 | 143 | 42 | M | M* |
| 261 | 102 | 145 | 43 | M | T |
| 55 | 102 | 142 | 40 | M | M* |
| 128 | 103 | 141 | 38 | M | T |
| 306 | 103 | 150 | 47 | M | T |
| 154 | 103 | 144 | 41 | M | M* |
| 36 | 103 | 140 | 37 | M | T |
| 20 | 104 | 150 | 46 | M | T |
| 124 | 104 | 152 | 48 | M | M* |
| 135 | 105 | 155 | 50 | M | M |
| 157 | 105 | 141 | 36 | M | T |
| 374 | 105 | 143 | 38 | M | M* |
| 60 | 106 | 151 | 45 | M | M* |

Table 13 -- continued

| SUBJECT NUMBER | PRE-INTERACTION (PREDISPOSITION ) SCORE | POST-INTERACTION SCORE | DIFFERENCE | POST-INTERACTION PREDICTED DECISION | OBSERVED DECISION |
|---|---|---|---|---|---|
| 75 | 106 | 141 | 35 | M | M* |
| 320 | 108 | 153 | 45 | M | M* |
| 47 | 108 | 146 | 38 | M | T |
| 61 | 108 | 143 | 35 | M | M* |
| 106 | 108 | 153 | 45 | M | T |
| 99 | 108 | 149 | 41 | M | M* |
| 33 | 110 | 149 | 39 | M | T |
| 133 | 110 | 153 | 43 | M | M* |
| 281 | 111 | 150 | 39 | M | T |
| 341 | 111 | 155 | 44 | M | M* |
| 76 | 111 | 149 | 38 | M | M* |
| 80 | 111 | 141 | 30 | M | T |
| 78 | 112 | 141 | 29 | M | M* |
| 89 | 112 | 149 | 37 | M | T |
| 101 | 113 | 150 | 37 | M | T |
| 39 | 113 | 145 | 32 | M | M* |
| 136 | 113 | 142 | 29 | M | M* |
| 63 | 114 | 153 | 39 | M | M* |
| 206 | 114 | 142 | 28 | M | M* |
| 163 | 115 | 152 | 37 | M | T |
| 171 | 115 | 144 | 29 | M | M* |
| 167 | 116 | 152 | 36 | M | T |
| 174 | 116 | 141 | 25 | M | M* |
| 375 | 117 | 156 | 39 | M | M* |
| 413 | 117 | 152 | 35 | M | T |
| 117 | 117 | 153 | 36 | M | M* |
| 10 | 124 | 141 | 23 | M | M* |
| 25 | 124 | 143 | 19 | M | T |
| 234 | 98 | 158 | 60 | M | T |

Table 13 -- continued

| SUBJECT NUMBER | PRE-INTERACTION (PREDISPOSITION) SCORE | POST-INTERACTION SCORE | DIFFERENCE | POST-INTERACTION PREDICTED DECISION | OBSERVED DECISION |
|---|---|---|---|---|---|
| 156 | 119 | 152 | 33 | M | T |
| 235 | 119 | 158 | 39 | M | T |
| 121 | 119 | 151 | 31 | M | M* |
| 18 | 119 | 142 | 23 | M | M* |
| 100 | 119 | 152 | 33 | M | T |
| 164 | 119 | 155 | 36 | M | T |
| 419 | 119 | 142 | 33 | M | T |
| 151 | 120 | 155 | 35 | M | T |
| 42 | 120 | 142 | 22 | M | M* |
| 82 | 120 | 140 | 20 | M | T |
| 87 | 120 | 148 | 28 | M | M* |
| 98 | 120 | 149 | 29 | M | M* |
| 17 | 120 | 151 | 31 | M | T |
| 379 | 121 | 144 | 23 | M | T |
| 86 | 121 | 151 | 30 | M | T |
| 94 | 121 | 150 | 31 | M | T |
| 123 | 121 | 150 | 31 | M | M* |
| 211 | 121 | 141 | 20 | M | M* |
| 62 | 122 | 151 | 29 | M | M* |
| 172 | 122 | 151 | 29 | M | T |
| 103 | 123 | 149 | 26 | M | M* |
| 301 | 124 | 155 | 31 | M | M* |