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WERNER, DENNIS WAYNE

THE MAKING OF A MEKRANOTI CHIEF: THE PSYCHOLOGICAL AND  
SOCIAL DETERMINANTS OF LEADERSHIP IN A NATIVE SOUTH  
AMERICAN SOCIETY

*City University of New York*

PH.D.

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THE MAKING OF A MEKRANOTI CHIEF:  
THE PSYCHOLOGICAL AND SOCIAL DETERMINANTS  
OF LEADERSHIP IN A NATIVE SOUTH AMERICAN SOCIETY

by

DENNIS WAYNE WERNER

A dissertation submitted to the Graduate  
Faculty in Anthropology in partial fulfillment of the  
Requirements for the degree of Doctor of  
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1980

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This manuscript has been read and accepted for the Graduate Faculty in Anthropology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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## Abstract

THE MAKING OF A MEKRANOTI CHIEF:  
THE PSYCHOLOGICAL AND SOCIAL DETERMINANTS OF  
LEADERSHIP IN A NATIVE SOUTH AMERICAN SOCIETY

by

Dennis Werner

Adviser: Carol R. Ember

Understanding the nature of leadership in a non-stratified setting is central to many debates in political anthropology. But, to date, no one has tested basic ideas about political influence in simpler societies. In this study I use quantitative data collected among the Mekranoti-Kayapó Indians of Central Brazil to examine a number of ideas about how people acquire or maintain leadership positions. A look at both the social ties and psychological characteristics of Mekranoti leaders accomplishes a number of theoretical goals.

First, a comparison of Mekranoti leaders with leaders from the United States and other stratified societies gives a better perspective on cross-cultural differences and similarities. Evidence from this study suggests that leaders share many common characteristics in vastly different situations. But there are also a few important differences. For example, in the United

States and other stratified societies leaders are generally wealthier than their followers. But among the Mekranoti, leaders are generally poorer.

A second question concerns a popular picture about the distribution of leadership positions in simpler societies. According to Fried, "egalitarian" leaders exercise influence only in their particular areas of expertise. Different kinds of tasks require different people to act as leaders. The Mekranoti data do not support this picture of leadership. Instead, correlations show that the same "renaissance men" generally lead in most areas of Mekranoti life.

A third question asks how older people come to exercise influence. One hypothesis sees the accumulation of wealth or economic control throughout one's years as the main reason for gerontocracy. Another view emphasizes the build-up of a political following in the form of offspring or affines. And a third view stresses the acquisition of knowledge and expertise. Correlational and path analyses of Mekranoti data show that the build-up of knowledge--especially knowledge of ceremonies--best accounts for the leadership advantage of Mekranoti elders.

The reasons for the influence advantage of men over women in Mekranoti society provide a fourth focus for this thesis. Beginning with arguments about basic differences between the sexes, I note that certain "male" traits--greater height, more aggressiveness, and

fewer child-care burdens--are characteristic of both male and female leaders among the Mekranoti. I attempt to clarify why these traits are related to leadership. None of the explanations for the leadership advantage given by height fit the Mekranoti data. Aggressiveness seems to be important primarily because of warfare. And, at least in part, child-care burdens seem to detract from influence because of the inability of women to build up friendship ties while preoccupied with children. Arguments about economic contributions or control are not supported by the data.

Finally, noting that the chief's male descendants have a leadership advantage over other Mekranoti, I examine various explanations for this de facto leadership inheritance. One view stresses the role of economic redistribution. Another attaches importance to the avoiding of factionalism upon leadership succession. Still other views give weight to the leadership skills or personality traits learned from one's parents. Finally, one view underlines the importance of transient visitors who prefer to limit their dealings to one family that they can trust (the chief's family) while working within the community. It was this latter view with its emphasis on "culture brokers" that received most support. I discuss some of the implications of this finding for theories of ranking and long distance trade.

This study concludes with various implications of the findings and suggestions for future research.

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## PREFACE

It was in the aftermath of Watergate that I first envisioned a project about leadership. I had always suspected that the "wrong" people made it to the top in our society, and scandals about United States leaders fed my cynicism. I wondered if other kinds of leadership were humanly possible. Anthropological accounts of simpler cultures gave the impression that there were, indeed, places in the world where the "right" people served as leaders. I wanted to check this out myself.

When a grant came through for Daniel R. Gross to head a field project among Central Brazilian Indian societies, I jumped at the chance to participate. Besides working for Dan's project on ecology, I also had the opportunity to follow my own interests. I brought along a research proposal I had prepared in a stimulating course on research methods given by Carol R. Ember. The proposal needed a lot of revisions, but it did provide a clear idea of the kinds of data I would need, and of how to collect it.

In the middle of February, 1976, I left on a plane for Brasilia with two colleagues from the Graduate Center of C.U.N.Y., Madeline Ritter, and Nancy Flowers. We met Dan Gross at the airport in

Brasília. Dan had been serving as Visiting Professor at the University of Brasília, and had set himself up in a huge apartment in the city. We all moved into this apartment while awaiting permits from the Brazilian government to study Indians. Our stay with Dan and his family was both pleasant and rewarding. During this time, Dan, Maddy, Nancy and I talked extensively about our projects, focussed our ideas, and drew up protocols to use in the field. Since Maddy, Nancy and I were going to different groups of Indians, this time spent at standardizing field routines proved indispensable to our research design.

When I finally departed for the Mekranoti village, I was apprehensive, but felt well prepared. Gustaaf Verswijver, a Belgian anthropologist who had previously spent several months with the Mekranoti, helped me settle in. On leaving the field for the last time in June, 1977, I felt I had accomplished as much as I could hope for. I needed only to return to New York to analyze the massive data I had collected and to write up results. My stay in Brazil had been both enjoyable, and fruitful.

This thesis, one of the products of that fieldwork experience, required the assistance of a large number of people. I could not adequately thank everyone who

helped me at different points. But I would like to acknowledge those who have been especially instrumental in seeing me through to the Ph.D. degree.

First, my intellectual development owes a great deal to Professors Carol R. Ember and Daniel R. Gross. The clarity and rigor with which they address important issues has made me appreciate the real value of social science research. And their inspired teaching and warm receptivity to students has encouraged me in the pursuit of an academic career. They have been supremely helpful throughout my dissertation research.

I would also like to thank the other members of my doctoral committee, Daniel G. Bates, and Robert A. Levine, for their many helpful suggestions. Madeline Ritter and Nancy Flowers, also, were extremely encouraging and helpful throughout my studies.

A few other people also helped me with specific parts of my dissertation. Dr. Horst Stipp gave indispensable advice on statistics. Judith Berman served as a second coder for personality and leadership variables. And Robert Lucero deserves credit for whatever felicity of style I managed to achieve.

I am also indebted to numerous people who helped me in the field. Gustaaf Verswijver assisted me with the practicalities of fieldwork among the Mekranoti, and provided intellectual stimulation. He graciously provided me with basic censuses and other information.

Ruth Thomson, Kathy Jefferson, and Micky Stout gave me linguistic materials to help me learn Kayapó, and offered interesting anecdotes about Mekranoti society. I also received help from Raimundo Amaral, Sr. Guilherme, and José Negri while staying among the Mekranoti.

In Brasília, Silêde Gross and Zefa were wonderfully hospitable during my residence with the Gross family. Numerous anthropologists in Brazil also helped me in different ways. I thank especially my colleague, Francisca Leoi, George Zarur, Roberto Cardoso de Oliveira, Delvair Montagner Melatti, Júlio Cesar Melatti, Lux Vidal, Alcida Ramos, Kenneth Taylor, Anthony Seeger, and Roque de Barros Laraia. Robert Carneiro offered me valuable advice before I left for Brazil.

Finally, I must thank the Mekranoti for their generous and amiable treatment of me during my stay in their village. Pykatire with his keen intelligence and delightful humor was an indispensable informant. Bebgogoti helped me with my relations with the rest of the village, and provided important information about Mekranoti history. Bepkum and Ajo faithfully helped me with the sinfully boring job of transcribing T.A.T stories. And Ire'i and Nokà-re made me feel at home while trekking with the Indians in the forest. Altogether, the Mekranoti were extremely cooperative and friendly throughout all aspects of my fieldwork.

This research was generously supported by NSF grants, BNS 76-03378 and BNS 78-25295, awarded to Professor Daniel R. Cross; and by an NSF dissertation improvement grant, BNS 78-24706, awarded to Professor Carol R. Ember for Dennis Werner.

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## CHAPTER 1

### INTRODUCTION

Leadership in non-Western societies is an abiding topic among anthropologists. Some devote whole monographs to the subject (Keesing and Keesing 1956; Ottenberg 1971; Oliver 1955; Kracke 1979), while others write lengthy chapters. As a result, there is a great wealth of anecdotal data about the kinds of people who become leaders in different societies. But despite this interest in leadership, no one, to my knowledge, has ever demonstrated that postulated leadership characteristics actually predict which people become leaders in non-Western societies. A quantified study offers some important advantages over anecdotal accounts of particular leaders. First, cross-cultural comparisons can be made more easily when statistical data are available to evaluate the relative importance of different factors in leadership acquisition. Also, random sampling and standardized coding procedures serve to guard against bias in the gathering and analyzing of data. Finally, as we shall see, quantified data also allow for the testing of specific hypotheses about why certain groups of people

within a society (e.g., elders, men, or privileged families) enjoy leadership advantages over others.

In this study, I use data collected among the Mekranoti-Kayapó Indians of Central Brazil to examine some of the factors anthropologists emphasize in their explanations of how leaders acquire or maintain their positions. By most anthropological standards the Mekranoti are a non-stratified society. Everyone has equal access to strategic resources, and there is little in the way of personal possessions to differentiate social classes. Thus, I concentrate primarily on those factors hypothesized as especially important to non-stratified leadership.

Anthropologists emphasize different variables in leadership. Some concentrate on the social characteristics of leaders--the number of their genealogical or affinal kin (Basso 1973:107; Wagley 1977; Hoebel 1960:37; Chagnon 1979; Hart and Pilling 1960), their positions in friendship networks (Harner 1973:201), the quality of their family backgrounds (Marshall 1960), and their wealth (Oliver 1955). Others emphasize physical characteristics like age (Simmons 1945; Reichel-Dolmatoff 1951), sex (Bacdayan 1977; Awe 1977), and height (Gregor 1978). And finally, still others stress psychological traits like intelligence (Lévi-Strauss 1944), social insight (Read 1959), ambition (Lévi-Strauss 1944), aggressiveness

(Collins 1971), competitiveness (Graves and Graves 1978), and need for achievement (LeVine 1966). It may be that many, or all of these factors are important for leadership. But some factors may be more important than others. The first aim of this thesis is to document the best predictors of Mekranoti leadership. But the study also addresses other questions:

1. Are leaders in non-stratified societies different from leaders in stratified societies? With the techniques used here, it is possible to compare the characteristics of Mekranoti leaders with the characteristics of leaders elsewhere. This gives a more balanced view to studies limited to the United States or similar societies (Stogdill 1974). It clarifies important similarities or differences in the ways societies distribute leadership roles. For example, in one study, Graves and Graves (1978) argue that competitiveness may characterize Western leaders, but that it does not characterize leaders in places like the Cook Islands where different personality traits are valued.

2. Do egalitarian societies distribute influence more evenly than do stratified societies? In one of the most prominent views of leadership in non-stratified societies, Fried (1967) argues that "egalitarian" societies are characterized, not only

by equal access to strategic resources, but also by equal access to prestige and influence. Fried defines an egalitarian society as one where "there are as many positions of prestige in any given age-sex grade as there are persons capable of filling them" (Fried 1967:33). His picture of egalitarian leadership also includes the notion that "egalitarian" leaders can claim influence and prestige only in their particular areas of expertise. For example, a good hunter may be influential in decisions about tracking animals, and may be highly regarded for the game he bags, but he will not carry this prestige to other areas. Different tasks require different kinds of people to fill leadership roles.

Fried's view contrasts rather sharply with that of Lévi-Strauss. Lévi-Strauss argues that there is a "natural leadership" that is born of "those psychological raw materials out of which any given culture is made (Lévi-Strauss, 1944). Whereas Fried sees different tasks as requiring different people to fill leadership roles, Lévi-Strauss sees leadership qualities as universal.

An empirical examination of these two views in one non-stratified society can help to provide a better picture of leadership in the simpler societies anthropologists study.

3. Why do the elderly wield a leadership advantage? Another area where questions of leadership are raised is in the study of aging. Anthropologists have long noted cross-cultural differences in the ways older people are treated (cf. Simmons 1945), and in the extent to which influence is accorded the elderly. How do older people in "gerontocratic" societies acquire their influence? Some anthropologists see the build-up of different kinds of social connections throughout one's years as the prime reason for increased influence in old age. Barth (1961:44) emphasizes the role of offspring in providing political support. Hart and Pilling (1960) and Spencer (1965) stress the importance of polygyny in providing not only children and affines, but also economic support. Oliver (1955) emphasizes the accumulation of wealth and the build-up of economic dependents.

Besides increased social ties, age may also bring about changes in personality that may affect leadership potential (Guttman 1974), or it may add the experience, knowledge and expertise needed for leadership roles (Reichel-Dolmatoff 1951:258). By looking at the social ties and personal traits of older Mekranoti leaders, it is possible to distinguish among these various hypotheses about the influence of elders.

4. Why do men have an apparent leadership advantage over women? Recently, anthropologists have devoted increased attention to the status of women in different societies. One of the most heavily debated topics within this area of research concerns the leadership potential of men versus women. Various writers have tried to explain the apparent prevalence of men's leadership advantage. Some argue that differences in status originate in differences in the contribution of men and women to subsistence (Leacock 1978; Schlegel 1977; Friedl 1978). Others see status differences as stemming from the opportunity to engage in trade (Lewis 1977; Sacks 1974). Finally, some writers emphasize differences in psychological characteristics, such as aggressiveness (Collins 1971), ability to concentrate (Schlegel 1977:35), or knowledge (Draper 1975:82). Evaluating these different ideas requires an understanding of the ways leaders acquire their positions. We need to know which of the traits--contribution to subsistence, trading ability, aggressiveness, ability to concentrate, or knowledge--best characterize male and female leaders.

5. Why do the chief's offspring have a leadership advantage? One of the major questions in political anthropology concerns the development of leadership inheritance. In his classic typology of political evolution, Fried (1967) sees political organization

as evolving from "egalitarian" into "ranked" and finally "stratified" society. In the transition from "egalitarian" to "ranked" society, Fried (1967:116) and others (Sanders and Webster 1978) devote special attention to leadership inheritance. Why does this unequal access to influence exist in non-stratified society? Different anthropologists express different ideas. One hypothesis sees redistribution and the economic advantages of the chief's descendants as responsible for their privileged leadership positions (Sahlins 1958; Fried 1967; Harris 1977). Other views emphasize the social ties that accrue to the chief's offspring (Chagnon 1979; Burling 1974). Still other arguments stress the importance of the knowledge or personality traits acquired by the chief's offspring (Ritzenhaler 1966).

By documenting the social ties and personal characteristics of the chief's descendants, and their leadership advantages, it is possible to evaluate the relative strength of these various arguments among the Mekranoti.

To summarize, there are a number of goals that can be accomplished with a study of leadership in a non-stratified society. Not only is it possible to gain a better understanding of the differences between stratified and non-stratified leadership, but it is also possible to evaluate more specific

arguments about the leadership advantages enjoyed by certain groups of people--the elderly, men and chiefly descendants. This study, then, is multifaceted in its treatment of a number of issues surrounding leadership.

#### PLAN OF STUDY

The plan of this study is as follows: After introducing the problem in this first chapter, chapter 2 gives a general introduction to Brazil's Mekranoti-Kayapó among whom data for this research were collected. Chapter 3 deals generally with the gathering and analyzing of data, and chapter 4, with the special problems of defining and measuring leadership. The contrasting views of Fried and Lévi-Strauss concerning the distribution of leadership tasks are also examined at this point.

Chapter 5 undertakes the task of documenting the kinds of personal connections and personal characteristics that leaders share. It is designed to give an overall picture of Mekranoti leadership. But it does not attempt to evaluate possible cause and effect relationships.

More specific questions about why certain types of people become leaders are asked in chapters 6, 7, and 8. Chapter 6 asks why older people are generally more influential among the Mekranoti. Chapter 7 asks

why men have a leadership advantage over women. And chapter 8 deals with the question of leadership inheritance, examining arguments about why the chief's male descendants have a leadership advantage over other Mekranoti. Finally, the concluding chapter summarizes the results from previous chapters, and discusses some of the implications of the findings. It ends with suggestions for future research.

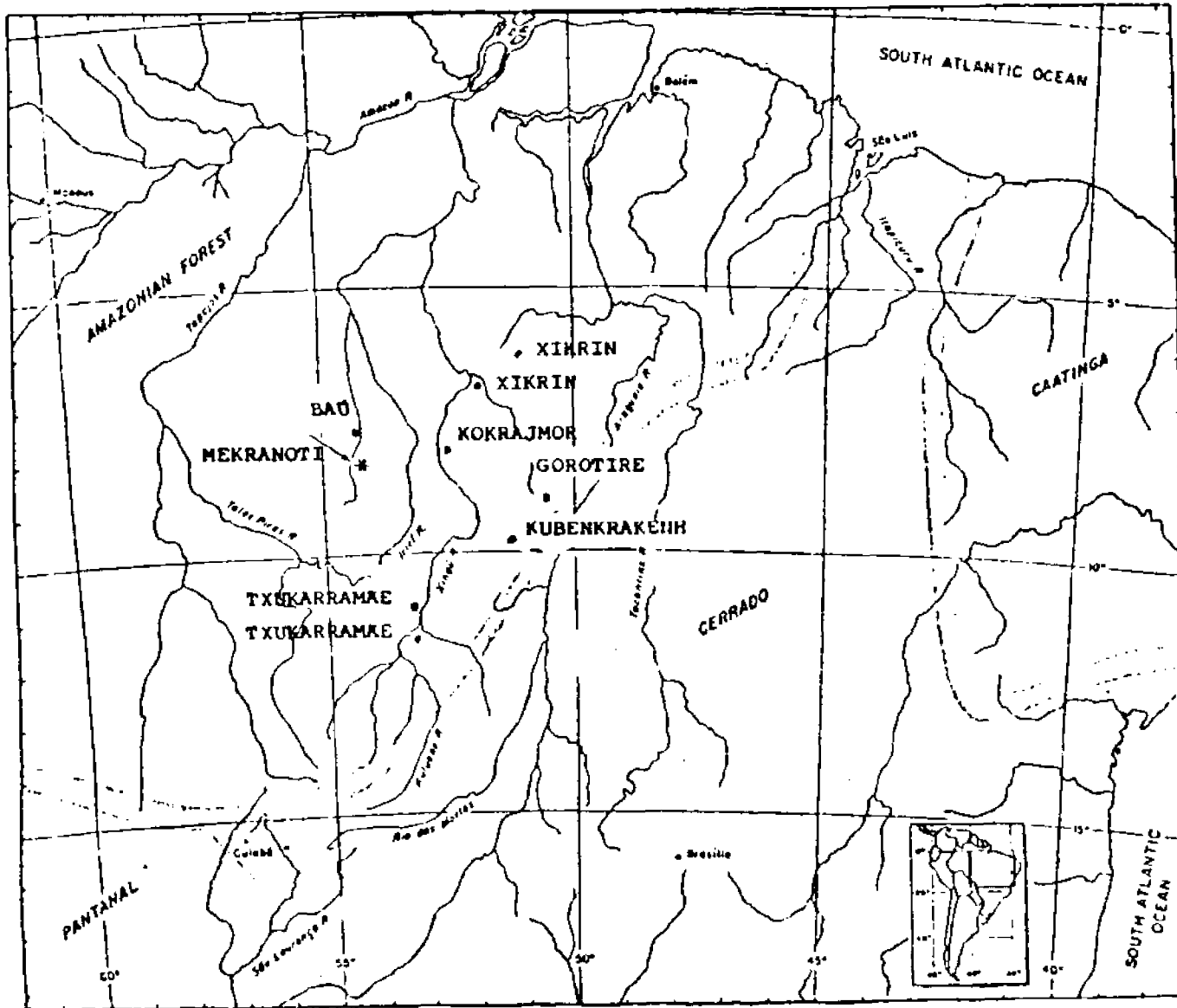
## CHAPTER 2

## THE MEKRANOTI

The data needed to carry out my research on leadership were gathered during a year-long stay (from 1976-1977) among the Kayapó Indians of Brazil's Posto Indígena Mekranoti. The Mekranoti are people currently living in one of nine villages of Kayapó-speaking Indians spread across the south of the Brazilian state of Pará (see figure 2.1). The Kayapó do not name their villages, but Brazilians have given them the names of: Mekranoti, Baú, Txukarramãe (two villages), Gorotire, Kokrajmor, Kubekrakenh, and Xikrin (two villages). Most of these villages are located in a transition zone to the cerrado (savanna) regions of Central Brazil, but the Mekranoti and Baú groups are located in the tropical forest (see map). The Kayapó have previously been studied by several anthropologists (Vidal 1977; Bamburger 1974; Turner 1969; Dreyfus 1963; and Moreira-Neto 1959), as well as by missionaries (Lukesch 1976; Banner 1961).

Like the majority of lowland South American Indian societies, the Kayapó would be considered unstratified by most anthropological standards. Vidal (1977) and Gross (1979) have labelled them egalitarian. Fried (1967:52) defines a non-strat-

FIGURE 2.1  
Kayapó villages



ified society as one in which everyone has equal access to basic resources. At least for the Mekranoti, this definition gives us no reason to doubt the unstratified nature of their society. Natural resources are open to anyone who wants to exploit them, and, in terms of material goods, there is little that one can accumulate. A highly nomadic society, the Mekranoti cannot carry around many possessions. As a result, there is materially very little that could potentially differentiate social classes.

The only visible forms of wealth in the present Mekranoti village are shotguns acquired from the Brazilian Indian Foundation (FUNAI), and personal ornaments made of feathers, shells, teeth, hooves and beads. In contrast to stratified societies, these material possessions do not correspond to higher prestige or power. Indeed, if anything, Mekranoti chiefs\* are poorer than other Mekranoti. Male chiefs have significantly fewer shotguns than other males, and are not significantly different in the number of baskets of personal ornaments that they own. What little wealth there is, then, does not carry prestige and does not give power.

Their free access to the strategic resources of land and water, their limited wealth differences, and

\*The term "chief" as used here does not refer to a hereditary chiefly class, but rather to the Mekranoti role of leader.

the failure of wealth to bring influence and prestige among the Mekranoti make this group an appropriate setting for a study of leadership in unstratified society. The Mekranoti provide a good contrast to other places where leadership is a function of economic status (Singh 1965; Kelley 1978; Stogdill 1974).

### SUBSISTENCE

Subsisting on slash-and-burn agriculture and hunting, the Mekranoti produce all of their food and other major necessities. This has allowed them to maintain a certain degree of freedom in their relations with the "civilized" world. Since they are not dependent on others for their livelihood, The Mekranoti can express dissatisfaction with FUNAI (the Brazilian Indian Foundation) and other civilizados by threatening to abandon government medical services and trade goods. This freedom is possible primarily because of the huge area of land to which they currently have access. The 285 Indians (139 adults) at Posto Indígena Mekranoti are surrounded by an apparently uninhabited primary tropical forest about the size of Belgium. There is no shortage of land for gardening and other subsistence needs.

Gross et al. (1979) argue that a restriction in the size of reservations for some Indian groups in

Central Brazil results in a shortening of fallow periods for gardens, with consequent environmental degradation, lower crop yields, and increased labor costs for subsistence. This increase in labor encourages many of these groups to turn to market activities to meet their subsistence needs. As a result, these groups become more dependent on the Brazilian and world economic systems. The huge area of primary forest available to the Mekranoti has not fostered this same dependency on the Western economy.

The relative abundance of the Mekranoti environment is reflected in soil fertility and garden yields (Gross, et al. 1979). Based on figures for the number of gardens cleared in the past two years, and on a sample of 18 gardens from which crops were weighed and counted, table 2.1 shows the productivity of Mekranoti agriculture. The major crop is manioc, yielding 407 million kilocalories\* of food a year to the Mekranoti village (or about 3910 kilocalories per person per day). Manioc is eaten all year round in the form of toasted flour and cakes. In the case of sweet manioc, it is also consumed boiled or roasted. Sweet potatoes, bananas, maize and yams also provide substantial calories. Maize is available for only a

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\*The term "kilocalorie" is used instead of "calorie." This latter term is ambiguous since in everyday usage "one calorie" means the same as "one kilocalorie." But in energy research, "one calorie" would be the equivalent of .001 kilocalorie.

TABLE 2.1  
AGRICULTURAL PRODUCTIVITY  
OF MEKRANOTI GARDENS

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Crop	Yield per year (in kilocalories)
Manioc	407,386,000
Sweet Potatoes	293,405,000
Bananas	184,980,820
Maize	151,121,000
Yams	29,010,960
Rice	2,038,084
Sugarcane, pumpkin, watermelon, papaya, pineapple	1,067,942
<b>total:</b>	<b>1,069,009,806</b>

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few months in the middle of the rainy season, while sweet potatoes and yams are mature only in the dry season. Bananas are eaten the year round. Rice, sugarcane, pumpkins, watermelon, papaya, and pineapple are relatively minor crops and are considered special treats. Altogether, the 285 Mekranoti produce over a billion kilocalories of food a year.

These productivity figures give an average of over 10,000 kilocalories per person per day--much more than anyone could possibly eat. The excess food remains as insurance against crop failure, and as a food cache (in the form of gardens) for Indians trekking in distant locations. The excess may also serve as a possible food source in case unexpected visitors arrive in the Mekranoti village. At one point in their past the Mekranoti were joined by a group of Kayapó from the Gorotire village to the East. Although their numbers were doubled over night, they had no trouble feeding the newcomers. On a trek over the summer of 1976 half of the Mekranoti village left to live near a small settlement of Kayapó on the Baú River. The forty or so Indians at Baú were able to feed the visitors, numbering more than a hundred, with little problem.

Productivity figures for animal proteins parallel those for calories. Although not providing a great surplus, hunting and fishing do give the Mekranoti an

adequate supply of protein. My calculations from data on hunting and fishing yields show the Mekranoti capture an average of 63 grams of animal protein per person per day (Werner, et al. 1974). Looking at food intake, rather than animal capture, gives a comparable figure of 72 grams per person per day.

Obtaining these more than adequate food supplies does not require a great deal of effort. Table 2.2 shows the average number of hours per week that adults devote to different activities. (The techniques used for measuring time allocation are described in Werner, et al. 1979.) Gardening, hunting and fishing take up only 16 hours a week of Mekranoti time. Other subsistence work--gathering of wild food and domestic animal care (chickens and dogs)--is negligible. Market activities (Brazil nut collecting and handicrafts manufacture) add another three hours a week. Most Mekranoti labor is devoted to tasks like child care, food preparation, housekeeping and gathering of firewood, that are not directly related to food procurement. (Manufacture of tools is necessary for subsistence, but since it is indirectly related to food procurement, it has been included under the non-subsistence work category.) Altogether, the Mekranoti spend about 30 hours a week on these other activities, making their average work week come to 51 hours.

TABLE 2.2  
 MEKRANOTI ACTIVITIES  
 (adults--over 15)

Daytime activities (from 6:00 A.M. to 8:00 P.M.)	Hours per week for average Mekranoti adult
<u>Subsistence work</u>	20.5
gardening	8.5
hunting	6.1
fishing	1.5
gathering	1.2
domestic animal care	.2
market activities	3.0
<u>Non-subsistence work</u> <sup>1</sup>	30.4
<u>Non Work</u> <sup>2</sup>	47.0
<u>Total hours per week</u>	98.0

<sup>1</sup> includes child care, food preparation, housekeeping, manufacture of tools, gathering firewood

<sup>2</sup> includes eating, ceremonial activities, hygiene, conversation, recreation and sitting idly

One aspect of subsistence is not revealed in these figures for yearly averages. This is the seasonality of Mekranoti life. Although there is a great deal of rainfall in the Mekranoti area--almost 2.5 meters during my year's stay--there is still a marked dry season from June through August (table 2.3). In 1976 there was not a drop of rain from June 18 to August 17. Rivers typically dry up, becoming stagnant pools by the beginning of September. When the rains come, however, they flood large areas of the forest, requiring travellers to wade through knee-high water to go almost anywhere.

Mekranoti activities must be scheduled according to season. Although gardens can be cut any time during the dry season, they must be burned in September and planted shortly thereafter. Since the Mekranoti do not weed or build fences, harvesting is the only gardening chore required after planting. Fishing with timbó poison is also possible only at the end of the dry season. This means that September is a particularly busy month. During my year's stay among the Indians, gardening time in August (when gardens were cut) averaged 20.3 hours a week. In September (burning and planting) it averaged 14.4 hours a week, much higher than the yearly average. Fishing showed a similar rise at these times, taking up more than six hours a week in September. Other Mekranoti activities

TABLE 2.3\*  
RAINFALL

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Month	Total rainfall (in millimeters)
January	231
February	159.5
March	351.6
April	230.5
May	125.5
June	98.9
July	0.0
August	32.5
September	106.0
October	310.5
November	356.5
December	459.3

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\*Figures are taken from FUNAI records made daily from a rain gauge installed by a hydro-electric company near the FUNAI house in the village. Records go from June 15, 1976 to June 14, 1977.

are usually scheduled to conform to these seasonal demands for garden cutting and timbó fishing.

One striking aspect of Mekranoti life is the practice of trekking. The Mekranoti spend almost a quarter of their time on overnight trips away from the village. These treks can last from two or three days to several months, and usually involve moving campsites every day. Rather than collect wild vegetable food, the Mekranoti carry garden produce from one camp to the next (Werner 1978). Some writers state that treks are primarily a dry season activity (Meggers 1971). Actually, however, the Mekranoti trek during both the wet and dry seasons. It is less difficult to leave the village during the dry season since paths are easier to make and to follow, but there is less incentive to move at this time. I suggest elsewhere (Werner 1978) that one of the prime reasons for Mekranoti treks is the desire to exploit game resources away from the village. In the dry season this desire for game is less intense since hunting around the village is more productive at this time than in the wet season. Also, sweet potatoes, yams and papaya--all prized garden foods--are harvested only during the dry season. This encourages people to stay near their gardens at home. In contrast, although trekking is more difficult in the wet season, a relative scarcity of game at home, a

more bland garden diet, and the temptation of wild wet-season fruits like açai berries, provide incentives to leave the home village.

Many writers (Meggers 1971; Zarur 1973; and Gross 1979) have seen Central Brazilian trekking as important in the development of various aspects of social organization. As we shall see in the next section, the Kayapó alternation between a sedentary and a nomadic existence is paralleled by differences in social structure for the two ways of life.

#### SOCIAL ORGANIZATION

Kayapó social structure is unusually elaborate for a lowland South American society (Gross 1979). A number of organizing principles unite people in different combinations. First, there are various clearly defined groups to which Kayapó may belong--extended family households, age grades, men's societies, men's houses, and villages. People belonging to these groups interact a great deal with each other. Many of these groups cross-cut each other. Thus, for example, two people may belong to the same age grade, but to different men's societies, and vice-versa. Second, there are also several kinds of dyadic ties--bilateral kin ties (both real and fictive), ceremonial friendships, and naming relationships. These dyadic ties do not result in clearly defined groupings of people.

Instead, each individual inherits or acquires his or her own idiosyncratic set of personal ties. Whereas the Mekranoti almost always know who belongs to which group, they are not often aware of the specific dyadic ties of others.

#### Extended Family Households

The smallest recognizable group in Mekranoti society is the extended family household. Normally, it is easy to determine who belongs to which household. After marriage a man moves in to live with his wife and her family. He may sleep in the men's house if his wife has just given birth, or if there are domestic quarrels, but it is clear that he basically belongs to his wife's household.

There are, however, some ambiguities that arise when trying to determine whether a couple are married or not. Among the Kayapó there is no wedding ceremony to mark the beginning of a marriage. A young man simply moves in with his "wife." But, while he may sleep in his "wife's" house on some nights, he may remain in the men's house at other times, and occasionally he may even spend nights with another woman. At times a man and a woman may disagree about whether they are really married. It is only after the birth of a couple's first child that one can be more certain about a marriage. At this time there is a

special ceremony called py-tê, marking the advancement of the young man from the nõrny to the kra-re (father's) age grade.

Even after the first child, however, ambiguity may still surround a marriage. I once asked a couple after a domestic quarrel if they were still married. The woman insisted that they were. The man said no. Although they had two children, the young man moved most (but not all) of his belongings into his parents' house. On another occasion, a fight almost broke out in the village when a man, in his own house, found someone else having sex with his wife. Extramarital affairs are quite common, and fairly acceptable among the Mekranoti, but it was insulting for a couple to be so open about their sexual liasons. The cuckolded husband made a speech in front of the village early the next morning. He argued that, since the other man liked his wife so much, he could have her. The other man, however, was not ready for marriage, and a fight almost broke out over who would take responsibility as a husband. A close informant of mine was also implicated in the case since he, too, had been having sex with the woman in question. This informant complained to me that the woman did not know what she wanted. She could not choose among husbands or even decide if she wanted a husband at all. Many Kayapó women spend their lives as kupry, unmarried

women who have had children out of wedlock. (There are 12 kupry in the present Mekranoti village.) For at least two months after this incident no one could say whether this woman was married or not, or who her husband might be.

But while many marriages may start off on uncertain grounds, eventually most Mekranoti settle into more stable marital arrangements, making defining marriage an easier task. It is only the young men who cannot easily be assigned to one household or another.

While it is usually easy to define household membership at any given moment, households are far from permanent. During my stay among the Mekranoti several sections of households changed their residency. In one case a couple and their children, who had been living away from the wife's mother and father, eventually rejoined the woman's parents when a new house was built to replace the decrepit one her parents lived in. In another case a crowded household occupied by two old sisters with their daughters and grandchildren split up. One of the old women, who had a husband living with her, remained in the original house with one married and two unmarried daughters. The other old woman, who had spent her life as a kupry, moved away with her two daughters and grandchildren to live in a house occupied by an unrelated

woman and her husband. Residency does change, then, when personal matters make it convenient to do so-- sometimes breaking the rule of matrilocality.

In the permanent base village Mekranoti households varied from one to twenty-five persons. While out on trek, however, it can become inconvenient to maintain this same collection of people together. Camps must be built around local terrain. Bodies of water or groups of ants can become formidable barriers between houses. On trek, then, the Mekranoti often break into smaller groups. On non-ceremonial treks the primary unit is generally the nuclear family. On ceremonial treks, people try to stick closer together, but the matrilocality rule of residence is completely discarded, and substituted with an ad hoc form of patrilocality. The night before a ceremonial trek, male ceremonial sponsors "choose up teams" made up of their male relatives (real and fictive). It is these people who live together in a longhouse or near each other while out on trek. While matrilocality extended families are typical of village life, then, other forms of residence are adopted when trekking in the forest.

The primary activities of extended family households are, as expectable, domestic--mostly eating and sleeping. Women tend to spend most of their time with other members of their households, often gardening,

processing manioc flour, or gathering wood or wild food together. Baby-sitting is also sometimes shared among household members (cf. Pasternak, Ember and Ember 1976). For men, the household may be less important. While women spend much of their time around the house, spinning cotton, cooking, or taking care of children, men do most of their chores away from the home--either out hunting in the forest, or making handicrafts and tools in the men's house. Men also spend their idle evening hours chatting in the men's house, while women remain at or near home, conversing with members of their own or neighboring families. The household, then, is much more of a woman's place than a man's.

### Age Grades

Another important grouping in Mekranoti society is based on age. Men and women pass individually through different age grades throughout their lives. They spend a great deal of time with these age mates. There are many different terms to distinguish age categories, but only a few categories are marked by ceremonies and are unambiguous (see figure 2.2).

Male and female babies are called prira among the Mekranoti--a term which is retained until reaching 10 years of age or more. At about this time a boy is taken from his mother's house and brought to the men's house by an older male. He uses the men's house

FIGURE 2.2

## AGE GRADES

Age	Age Grade	
	Males	Females
0-10 years	prire ↓	prire ↓
10-puberty	'Okre ↓	kurere-re ↓
puberty- birth of first child	nörny ↓	krajtyk ↓
birth of first child- old age	kra-re ↓	kra-re ↓
old age	kubêngêt	kubêngêt

for sleeping from then on until he begets children of his own. From the time he begins sleeping in the men's house until reaching puberty he is called 'okre. At puberty he is given a penis sheath to wear and becomes a nōrny. The term nōrny is sometimes translated as "bachelor," but really has little to do with marital status. It actually refers to the time between a boy's attaining of the penis sheath and his becoming a father. A man may remain a nōrny until he is 25 or 30 years old. After the birth of his first child (and the py-tê ceremony if it is also his wife's first child) a man becomes known as kra-re (one with children). Years later, and somewhat ambiguously, he gradually becomes known as a kubângêt (elder).

Mekranoti females pass through similar age grades. They are known as prire until about 10 years old, when gradually, and without a marking ceremony, they begin to be referred to as kurere-re. There is a special ceremony at a girl's first menstruation, after which she may be called krajtyk. The Kayapó, however, do not recognize menstruation as such. Evidently women are pregnant so often, menstruate so little, and bathe so much that they do not see menstruation as a natural body process. Afraid of illness, they call in the FUNAI medical attendant whenever menstrual blood is noticed. A woman's first menstruation is thought to be an injury brought about by her first sexual relation-

ships. A woman continues to be called a kurere-re until after the birth of her first child when she is called kra-re. She remains in this category until reaching old age and kubêngât status.

There is a general tendency, beginning early in life, for people of the same age to associate with each other. Young boys form groups to play, sometimes trapping, cooking and eating small birds together. Young girls similarly play together, although seemingly in smaller groups. Girls are more likely to be saddled with caring for their younger siblings. The nōrny age grade has its own sitting place in the men's house, and also sticks together in hunting trips and soccer games. Kurere-re also go around together, although informants insist that in the past the kurere-re were a much closer group than they are today. Vidal (1977) says that among the Xikrin-Kayapó kurere-re used to accompany the men on warfare expeditions. Common activities for men and women of the kra-re age grade are less pronounced. There is a tendency for fathers of the same age to sit together in the men's house, but this becomes a formal rule only in the case of members of the more numerous men's society which is divided into an older and younger section. Kra-re seem to be involved more in their own families and in the activities of their men's and women's societies than in age-graded activities. Finally, the elders (kubêngât) are also ill-defined in

their activities. For the men, only elders can do the nightly harangues, and it is mostly elders who spend time making Kayapó handicrafts. Elder women spend more time spinning cotton, but, like elder men, they do not normally act as a group.

The differences in age grades become more pronounced while out on trek. The boys who are 'ôkre must build the men's house they use for sleeping, and also provide leaves for the men to sit on at nightly meetings. The nörny are generally assigned the task of cutting new paths before they go out hunting. Elders spend their time butchering game as it is brought in (the ceremonial sponsors distribute it), and transporting bundles of garden produce from one campsite to the next. The rest of the men devote their time to hunting. For the women differences in age are less important while out on trek, although again, elders tend to do more transporting of garden produce between campsites.

The only other activity which separates age grades is the annual or biennial expedition to gather Brazil nuts for FUNAI. At these times the nörny and some of the younger kra-re are sent to gather the nuts, while the mëbëngët stay behind.

Among the Xikrin-Kayapó where there are no longer any men's and women's societies, many of the activities formerly organized by the societies, are now performed

by age grades (Vidal 1977). This has made the age grades more important among the Xikrin than among the Mekranoti.

### Men's and Women's Societies

At the present time there are two men's societies and two women's societies among the Mekranoti. When a man's first child is born he must make his decision about which society he will join. His wife joins the corresponding women's society at this time. The decision of the young man is a free one, but there is some tendency for men to join the society of their wife's father (Verswijver 1978)--men in the same household all tend to belong to the same men's society. Men normally say they join the men's society where their friends are located, and they consider the make-up of the different societies before coming to a final decision. Usually men remain in the same society even if they remarry, but changes do occur with changing personal relations.

Women join what might be considered the "ladies auxiliary" to their husbands' men's societies. Upon remarriage a woman can choose to remain in the same society as before, or to join the women's society corresponding to her new husband's group. In all, membership is rather free, but it is considered poor form to change society loyalties too often.

In the past the Mekranoti have had several different men's and women's societies (The name Mekranoti, in fact,

refers to one such historic men's society.) In some villages there were three societies in existence at once. At other times there were no societies at all. The two present men's societies--the mēpa'ākadjāt and the mē'ōtoti--originated around 1958 when, noticing cliques that seemed to have developed in the men's house, the men agreed to name their friendship groups. Previous men's societies died out when villages were split or when warfare or epidemics eliminated most of the members of one society or another.

A number of activities are organized by men's society. Each group has its own chief (or chiefs), plants its own communal rice and kitchen gardens, and goes on separate fishing expeditions and ceremonial hunting trips. Sometimes, when only the men go out on trek to gather tortoises for a ceremony, they separate themselves into their two men's societies, with the nōrny ("bachelor") age grade accompanying the smaller, mēpa'ākadjāt society. Society members also cooperate with each other in housebuilding and in other communal labor. Finally the two societies form teams to play against each other in soccer and a native brand of hockey.

When conversing at night in the men's house, members of the mē'ōtoti society sit in one half of the building. The mēpa'ākadjāt and the nōrny share the other half, each in its respective corner.

The mē'ōtoti, who have about twice as many members as the mē'a'akadjāt, also divide their seating area into one section for older and another for younger men.

Activities of the women's societies are more restricted. When preparing for a communal feast, women go with members of their own society to harvest food from the society's gardens. Women also meet once every week or two to paint each other with genipap dye. Beyond these two activities there is little that is recognizably organized around women's society membership.

In the past, Mekranoti men's societies sometimes became powerful political factions, but as often as not, the societies fell apart, or individuals transferred membership to match other alliances whenever disputes arose. As informants describe their history, there have been at least seven different men's societies since 1930.

### Men's Houses

Located in the center of the village surrounded by two concentric circles of domestic houses, the current Mekranoti men's house serves, in the evening and early morning, as a meeting place for the men. During the day it acts as a factory for handicrafts, and at night it is used as a dormitory by older men observing sex taboos and by the 'ōkrê and nōrny age grades. Most of the time the building is strictly off limits

to women, but on special occasions, like the reunification of villagers after a long separation, or the interruption of a woman's ceremony by rain, the women may also enter the building.

In some Mekranoti villages of the past there were two men's houses, each containing one or more men's societies. (Societies were not split between men's houses.) The Mekranoti speak disparagingly of such villages, arguing that a two-men's house village can only lead to fighting and murder.

### Villages

The last Kayapó grouping to be considered is the village. The Kayapó normally identify with one large village which they use as a base in between trekking periods. For many treks all of the members of a given village travel together (Werner 1978), but there are times when smaller groups make expeditions on their own. In the past, villages sometimes split up temporarily while members went on war raids to Indian or Brazilian settlements. Although their history reveals many instances of village splits and fusions, the Kayapó are usually clear about which village they belong to at any given moment.

Some Kayapó social groupings are more basic than others. They can be found in all Kayapó villages. But other groups are added only at certain times.

Extended family households and age grades are most basic. All Kayapó villages have these institutions. On the other hand, men's and women's societies are added on top of the age grades only in some places. The present day Xikrin and some past Mekranoti villages did not have societies; the current Mekranoti village does. Two men's houses seem to be built only in very large villages where age grades and men's and women's societies are already present. Only a few Mekranoti villages since 1930 have had two men's houses, although almost all had two or more men's societies.

At least in part the adding of men's/women's societies and of additional men's houses seems to be a function of the size of the village, but the correlation is not perfect. Some very large Mekranoti villages of the past had only one men's house.

#### Kin ties

The Mekranoti calculate kinship bilaterally, but they remember genealogies only as far back as their parents' siblings and grandparents. Because of the shallow genealogies, depopulation, and village splits, most Mekranoti do not have many kinsmen in the village. Perhaps to compensate for their lack of real kin, "öbikwa djwji," most Mekranoti have a large number of fictive kin, "öbikwa kaäk." These "kin" are acquired through a common childhood in the same household, through a mutual arrangement of friends, and through

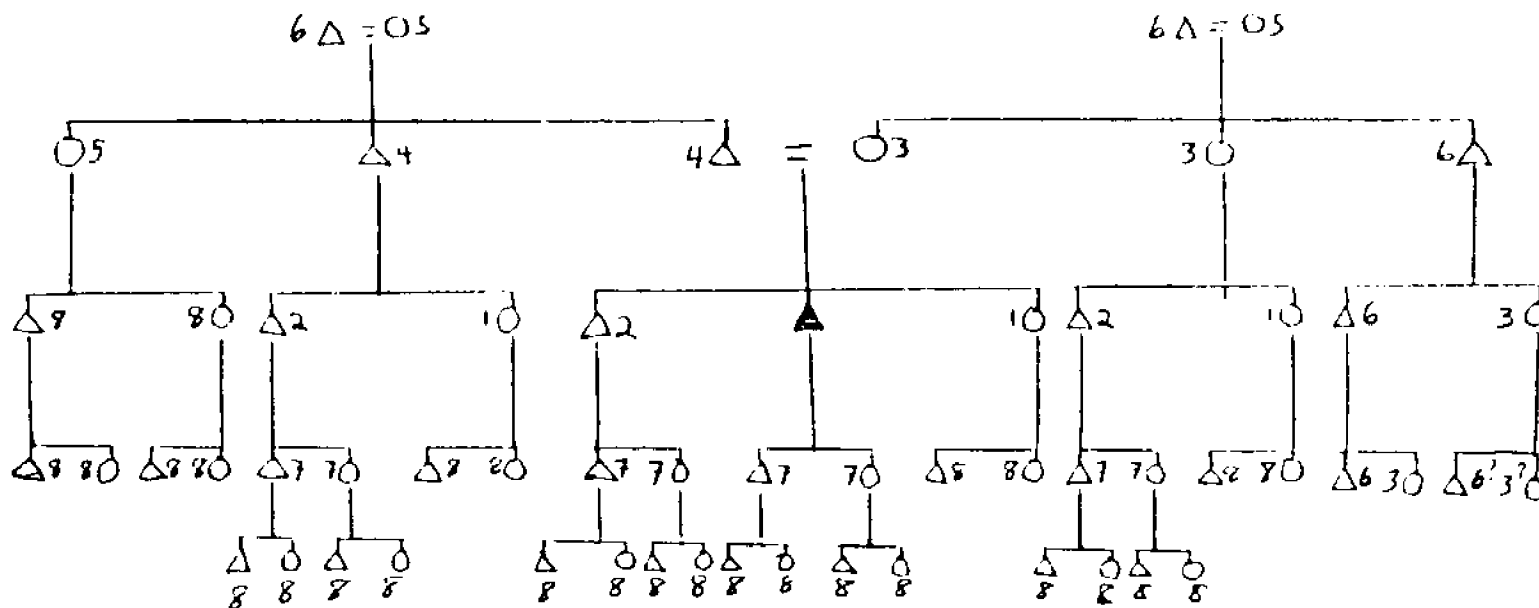
bilateral inheritance (i.e. one inherits the fictive kin of one's mother and father). Almost everyone in the village can relate him or herself to everyone else through either a real or fictive kin term. The Mekranoti generally feel, however, that real kin are closer than fictive. Theoretically, one should not marry real kin (although there are exceptions), but fictive kin are marriageable.

Although their kinship terminology is complex (see figures 2.3 and 2.4), the Mekranoti, in practice, do not make great distinctions among different kinds of kin. There are some occasions (such as ceremonial treks) when a man needs "kamy" (B, MZS, FBS) and other occasions, such as a ceremonial orgy when one must "give away" one's "tabdjw̃" (BCC, ZC, FZC, grandchildren, and the children of tabdjw̃). Still, in general, there is little, beyond genealogical closeness, that differentiates kin called by different terms.

#### Naming Relationships

One kin tie that stands out as somewhat important is that between ngât (FF, MF, MB, MBS, etc.) and tabdjw̃ (SS, DS, FZS, etc.) or between kwat̃j (MM, FM, FZ) and tabdjw̃ (SD, DD, BD). Ngât, real or fictive, give their names and ceremonial privileges to their male tabdjw̃, and kwat̃j do the same for their female tabdjw̃. The ceremonial privileges consist of the rights to make and wear

FIGURE 2.3  
KIN TERMS OF REFERENCE  
(Male ego)

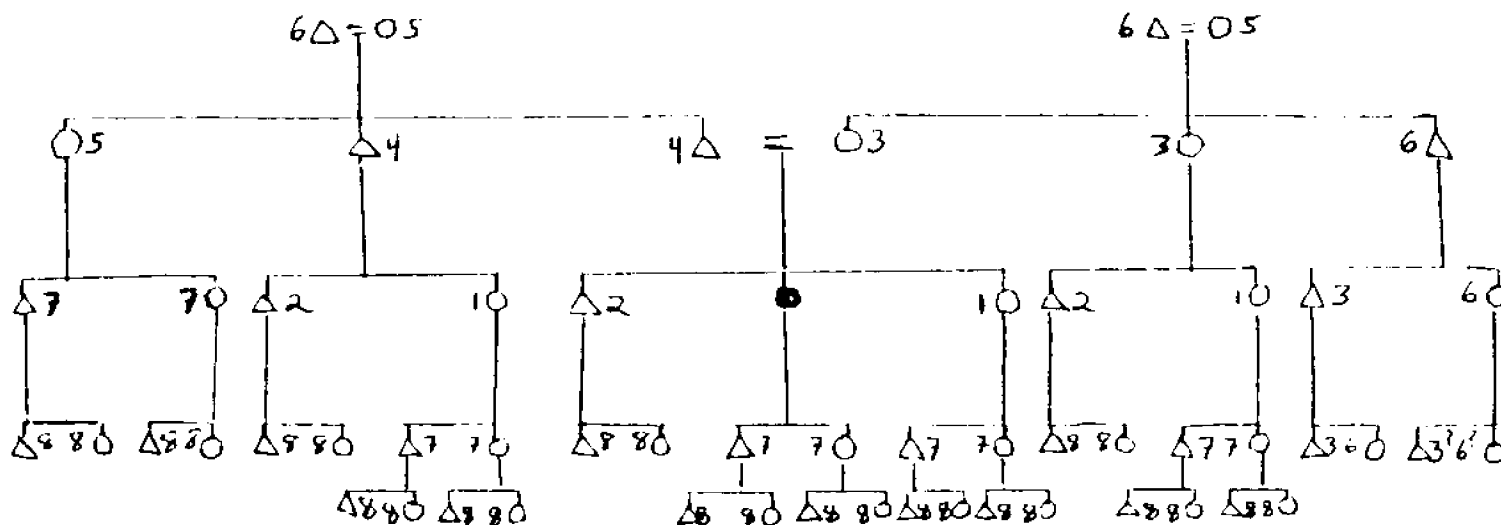


- 1=kanikwǎj
- 2=kamy
- 3=nǎ
- 4=bam
- 5=kwatǎj
- 6=nqǎt
- 7=kra
- 8=tabdjwǎj

The children of tabdjwǎj  
are also tabdjwǎj

Note: There are also other sets of kin terms in Kayapó that are used a) for addressing a person b) for reference to a relative of both the speaker and the listener, and c) for reference to a krabdjwǎj (ceremonial friend) of the speaker, if this person is also a relative of the listener.

FIGURE 2.4  
KIN TERMS OF REFERENCE  
(FEMALE EGO)



- 1=kanikwǎj
- 2=kamy
- 3=nǎ
- 4=bam
- 5=kwatǎj
- 6=ngǎt
- 7=kra
- 8=tabdjwǎj

The children of tabdjwǎj  
are also tabdjwǎj

Note: There are also other sets of kin terms in Kayapó that are used a) for addressing a person, b) for reference to a relative of both the speaker and the listener, and c) for reference to a krǎbdjwǎj (ceremonial friend) of the speaker, if this person is also a relative of the listener.

special ornaments, or to maintain special roles in the various Kayapó ceremonies. Most Kayapó festivals involve months of preparation in the village and a trek to gather tortoises before a grand finale takes place in the village. For all of the ceremonial events making up these festivities individuals are given their own special roles to carry out. Some roles, such as song leader, are clearly more important than others, and may have important effects on one's leadership chances.

#### Ceremonial Friends

There is one additional dyadic tie among the Mekranoti--that of ceremonial friendships, krabdjw̃. Krabdjw̃ are non-relatives with whom one normally maintains an avoidance relationship. At the same time a joking relationship forms between an individual and his or her krabdjw̃'s spouse. If between people of the same sex, the joking relationship is one of belligerence; between people of the opposite sex, it is one of sexual joking. Krabdjw̃ become most important during certain moments in Kayapó ceremonies when food-sharing takes place between the families of the krabdjw̃.

Krabdjw̃ are technically inherited patrilineally, but may also be acquired by arrangement when needed by ceremonial sponsors for a particular ceremony. In practice, krabdjw̃ relationships are rather short-lived. Many are forgotten over time, so that some people

have no krabdjw at all, although they can easily acquire them if needed.

Extended family households, age grades, men's and women's societies, men's houses, villages, bilateral kin ties, and ceremonial friendships make up the core of Kayapó social institutions. Perhaps the most impressive aspects of the social system are its elaborateness and its flexibility. Not only can the Kayapó add or drop social ties as the need arises, but they can do the same with whole institutions like men's societies and men's houses.

#### HISTORY OF THE MEKRANOTI-KAYAPÓ

The history of the Mekranoti-Kayapó reveals some of the political problems these Indians had to confront, and the ways they used the social institutions in their repertoire to handle difficult situations. The history is one of frequent village movements, splits and fusions, and of ever present threats of warfare. Movements from one village to the next were so frequent that they could not be clearly distinguished, but fissions and fusions were more clear.

#### Early Kayapó History

Kayapó is one of a large family of native Central Brazilian languages known as Gê. Most closely related to Kayapó are Apinagê and Timbira, spoken

by Indians to the east of the Kayapó, in the Brazilian states of Maranhão and Goiás. More distant languages include Xavante, Xerente, and Suiá, spoken by Indians to the south, mostly in Mato Grosso state. Just when the Gê languages separated is unknown, but all of the Gê-speaking groups continue to share many similarities in their social and ceremonial lives. Perhaps most characteristic is the elaborateness of social and ceremonial organization, which distinguishes Gê from other lowland South American societies. Like the Kayapó, other Gê groups also possess many cross-cutting ties. Age grades, age sets, men's/women's societies, "tribal" identities, clans, ceremonial societies, and a complex ceremonial life in general are typical of many of these groups. Gross (1979) attributes much of this social elaborateness to warfare, and the alternation between sedentary and migratory life styles that characterize the cerrado (savanna) regions of Brazil. (Gross also includes some non-Gê groups, like the Bororo, Mundurucú, and Tapirapé, in his explanatory scheme.) Except for the Mekranoti and Baú-Kayapó (and a few others), the other Gê-speaking groups are almost all concentrated in the savanna regions of Central Brazil. Even the exceptions at one time in their past traditionally lived in the cerrado.

Although we do not know when the Kayapó separated from these other Gê groups, we are better informed about the more recent history of Kayapó splits. Vidal (1977) reports that the Xikrin-Kayapó were already separated from the Gorotire-Kayapó in 1859, when the first Kayapó groups were contacted by Brazilians. The Mekranoti were originally a part of the large Gorotire village, which later gave birth, not only to the Mekranoti, but also to the Kubenkrakenh, Kokrajmor, and Baú villages. The Txukarramãe are a recent group, formed from a later split within the Mekranoti village. The naming of these groups is somewhat confusing. The Kayapó do not actually name villages. "Mekranoti," for example, refers to the name of a men's society in the original Gorotire village. People living in the Txukarramãe villages consider themselves to be Mekranoti just as much as those who live at Posto Indígena Mekranoti. To avoid confusion, however, I use the term "Mekranoti" to refer only to the group of people living at Posto Indígena Mekranoti.

#### Recent Mekranoti History

The history of the Mekranoti as a separate group begins around 1900 when Mote-re, a leader of the Mekranoti men's society of the old Gorotire village, discovered another man having sexual relations with his wife (Turner 1965). A club duel followed. This resulted in increased hostilities and the eventual

split-off of Mote-re's men's society from the home village. Mote-re crossed the Xingú River to found a new village to the west of the great river. Informants in the present Mekranoti village still remember the time when Mote-re was their chief.

From the time of this split-off until about 1935 and the arrival of a second faction from the Gorotire village, the Mekranoti enjoyed relative calm. During this period they lived in several different main villages. Some of them had two men's houses, with the mëapjetikop and the mëtyktire men's societies in one men's house, and the mëkryre society in the other. Although there were battles with Brazilians, and with Kreen Akrore and Juruna Indians at this time, the period was one of relative peace, because the Kayapó at least were peaceful among themselves.

Around 1935 the Mekranoti were visited by a faction of Kayapó from the Gorotire village. The group was unwelcome and a brief battle sent the Gorotire faction off to the forest to join another group split-off from the original Gorotire village, the Kararao. Soon after this incident, still another faction from the Gorotire village appeared among the Mekranoti. This time the Mekranoti welcomed the newcomers, led by Tapjet. A second circle of houses was built around the village to accommodate them, and Tapjet's followers assimilated themselves to the

community by joining the two existing men's societies-- the mētyktire, and the mēkryre. But Tapjêt's group soon brought trouble. Shortly after Tapjêt's arrival the Mekranoti became embroiled in a series of revenge killings among themselves and with other Kayapó groups.

By about 1940 Angme'ê, a relative of Tapjêt (who had died by this time), had become the leader of a hostile faction within the Mekranoti community. He and his followers (mostly relatives, I am told) took off for the forest. They returned briefly on a peace mission, but with hostilities still high, they were forced to leave again. Angme'ê eventually joined the split-off group of Kararao where two men's societies, the mēakrekroti, and the mē'itâr, came into existence. A portion of Angme'ê's group, however, found its way back to the Mekranoti village, where individuals joined their close relatives.

While Angme'ê was joining the Kararao group to the west, the Mekranoti village underwent yet another split. This time the separation was a peaceful one in which Bâjkâ-re and others left to capture children from the Tapirapê on the Araguaia River. Founding a village to the east of the Xingú, Bâjkâ-re's group lived for several years apart from the main Mekranoti village.

Shortly after Bājkā-re's group departed for the Tapirapê, problems arose in the main Mekranoti village. Bebgogoti (the present Mekranoti chief), who was then a leader of a sizeable faction, had a disagreement with Kroma-re, a leader of another faction, and the two groups split. At about the same time another problem arose over the construction of a new men's house. It seems a child had accidentally set fire to the old men's house and the nōrny (bachelors) age grade was assigned the job of rebuilding. Having finished their job, the nōrny were insulted when some old men began to criticize their work. A fight ensued. As a result, the nōrny took their wives and left for the forest to set up a village of their own. The nōrny remained in this village for some time, but eventually returned to the main group when the fathers of some of the nōrny begged them to come back.

In 1953 Claudio Villas-Boas of the Brazilian Indian Protection Service (SPI) contacted the groups of Bājkā-re, Bebgogoti and Kroma-re. It is unclear who was contacted first. Bājkā-re's group was on its way back to join the other Mekranoti, and Bebgogoti's and Kroma-re's groups were geographically nearby. In any case, all three groups came together in one village in order to receive presents from Claudio.

Although Claudio Villas-Boas wanted the Indians to remain together near the Xingú, the outbreak of an epidemic convinced some people that it was better to leave. Half of the group--the Txukarramãe--stayed

behind, but the other half left for the forest to live near the village and gardens founded earlier by the nõrny age grade. (It is this village which was later officially named "Posto Indígena Mekranoti" by the Brazilian Indian Foundation.) The Mekranoti had been living at this village for several years when they received a visit from a messenger sent by Francisco Mereilles of the Indian Protection Service. Because of attacks the Mekranoti had made on Brazilian settlements to the West, Mereilles was asking the Mekranoti to come to the Cantoco River to receive presents of pacification. The Indians he sent were people from the Angme'ê contingent who had been contacted by Mereilles a few years earlier. One of the messengers was Kokoreti, Angme'ê's son, who is now the chief of the current mēpa'akadjāt men's society.

Part of Bebgogoti's village went to receive Mereilles' presents (about 1957), but returned soon afterwards because of epidemics. Later, there were other offers of goods from Claudio Villas-Boas to the East, and again from Mereilles to the West. Some members of Bebgogoti's village went to receive the presents in these two locations, but the base village itself was not moved.

Finally, in 1966 a missionary joined the Mekranoti who had come to the Pitiatia River to receive additional gifts from Mereilles. This missionary

returned to the village with the Mekranoti who began construction of an airstrip. After the Mekranoti carried out a devastating attack on the Kreen Akrore in 1968, and after a severe malaria epidemic decimated the Mekranoti population, this missionary was forced by the Brazilian government to leave the village. Apparently, he was blamed either for the attack or for the epidemic. In any case, new missionaries from the Summer Institute of Linguistics (SIL) arrived in the village in 1970 where they continued to reside until my fieldwork in 1976. A FUNAI medical attendant joined the Mekranoti in 1973. Several government officials (SPI or FUNAI) spent short periods of time in the Mekranoti village prior to 1976, but a more permanent official moved in only during the summer of 1976. None of these officials have much influence on day to day Mekranoti activities. Although the missionaries and FUNAI officials are often absent from the village, FUNAI now requires a government medical attendant to remain on duty in the village at all times, but he does not accompany villagers on trek.

From the time of Tapjê's arrival in 1935 until the permanent contact begun by missionaries in 1966, the Mekranoti were under great stress. Tables 2.4 and 2.5 show the number of people who died from various causes throughout Mekranoti history. The figures are derived from genealogies and are only a sample of the deaths that occurred. But they are informative

TABLE 2.4  
CAUSES OF DEATH BY AGE AT DEATH AND DATE OF DEATH  
(329 MALES)

Cause of Death	Sickness (148)					Homicide (77)					Accident (13)					Old Age (10)	No Information (81)				
	Child	Bachelor	Adult	Old	No Information	Child	Bachelor	Adult	Old	No Information	Child	Bachelor	Adult	Old	No Information	Old	Child	Bachelor	Adult	Old	No Information
pre 1935	7	4	8	1	0	0	3	9	0	1	1	0	1	0	0	3	1	0	8	0	2
1935-1953	7	18	24	1	3	5	20	21	2	1	0	1	1	0	0	5	5	8	13	0	11
1953-1966	13	7	20	2	4	1	2	5	0	0	2	0	1	0	0	0	2	4	10	1	1
1966-1977	8	1	13	2	3	0	0	4	0	0	2	1	2	0	0	2	2	3	3	1	0
No Information	0	0	1	1	0	0	1	2	0	0	0	0	1	0	0	0	0	0	2	0	4

TABLE 2.5  
 CAUSES OF DEATH BY AGE AT DEATH AND DATE OF DEATH  
 (268 FEMALES)

Cause of Death	Sickness (130)				Homicide (24)				Accident (10)				Old Age (16)	Child Birth (4)	Still born (5)	No Information (79)			
	Child	Adult	Old	No Information	Child	Adult	Old	No Information	Child	Adult	Old	No Information	Old	Adult	Child	Child	Adult	Old	No Information
pre 1935	4	4	0	2	0	5	0	0	1	1	0	0	6	2	0	1	3	0	0
1935-1953	11	21	1	5	3	11	0	2	3	2	0	0	5	0	1	19	21	0	5
1953-1966	13	34	1	5	1	1	0	0	1	0	0	0	4	2	1	7	9	0	4
1966-1977	5	19	1	2	0	0	0	0	0	2	0	0	1	0	0	2	3	0	1
No Information	0	0	1	1	0	1	0	0	0	0	0	0	0	0	3	3	0	0	1

about changes in the causes of death over time. The period from 1935 until pacification in 1953 is marked by a great deal of warfare. Prior to 1935 29 percent of deaths were the result of homicide,\* but from 1935-1953 this figure rose to 37 percent. Much of the fighting involved raids on Brazilians whose superior weapons were coveted by the Indians (tables 2.6 and 2.7). From 1953 until the arrival of the missionary in 1966 (the "contact" period) homicides were reduced, accounting for only 8 percent of deaths. But epidemics of malaria, measles, whooping cough, and common colds occurred, one after another, greatly reducing the population.

The Mekranoti generally think that things are going well for them now. They sometimes tease the Indians who remained behind with Claudio Villas-Boas in the Xingú Park. This other group--the Txukarramãe--has suffered repeated problems with Brazilian encroachments on their lands. But Posto Indígena Mekranoti, where Bebgogoti's group is located, has no such problems as of yet. At one point during my fieldwork Bebgogoti made a speech to the young men, in which he

\*I do not distinguish between homicides due to warfare and other homicides. The reader can assume that killings by non-Kayapó are warfare related. With killings by other Kayapó it is difficult to distinguish among "internal warfare," "feuding," and "fights." Definitions of warfare would be quite arbitrary.

TABLE 2.6

ETHNIC IDENTITY OF KILLER AND DATE OF KILLING  
(FEMALES KILLED)

Ethnic Identity of Killer	Pre 1935	1935- 1953	1953- 1966	1966- 1977	No Information
Brazilian	0	5	0	0	0
Kreen Akrore	4	2	0	0	1
Juruna	0	0	0	0	0
Kayapó	0	4	1	0	0
Other Indian (Probably Kayapó)	0	2	1	0	0
No Information	1	3	0	0	0

TABLE 2.7  
 ETHNIC IDENTITY OF KILLER AND DATE OF KILLING  
 (MALES KILLED)

Ethnic Identity of Killer	Pre 1935	1935- 1953	1953- 1966	1966- 1977	No Information
Brazilian	6	26	2	1	1
Kreen Akrore	4	4	0	0	1
Juruna	1	2	0	0	0
Kayapó	1	15	6	3	1
Other Indian (Probably Kayapó)	0	0	0	0	0
No Information	1	2	0	0	0

emphasized how well things were going in the village, and encouraged the young men to get married and to reproduce.

### The Present Situation

Often after entering into contact with Western society, previously isolated groups begin to lose their egalitarian nature and take on more stratified characteristics. Most likely, the Mekranoti, too, will eventually become more stratified as they increase their ties with the broader Brazilian and world economic systems. But, since contact with the outside is a relatively new phenomenon for the Mekranoti, they have been able to maintain, for the time being at least, a basically unstratified social system.

The Mekranoti's main contacts with Brazilians are restricted primarily to limited trade and medical services. Trade with the larger Brazilian society consists primarily in the exchange of Brazil nuts and native handicrafts for guns, tools and pans. FUNAI serves as the major middleman in these transactions, although missionaries, anthropologists, and other occasional visitors also sometimes exchange Western goods for native handicrafts or informant services. Handicrafts are traded only occasionally when a FUNAI plane has the space to take them out to an Indian handicrafts store in Belém. Brazil nut collecting is more important, and is carried out once every year

or two near a distant river, more than a week's walk from the village. On these occasions young men (and occasionally some women) are sent out to spend a month or two during the rainy season to do the collecting under the supervision of FUNAI officials. The Brazil nuts are then sent by boat down the Baú River, and eventually they find their way to Belém (via the Irirí, Xingú and Amazon Rivers) where they are sold. Originally FUNAI paid for these Brazil nuts by sending in planeloads of "presents" for the Indians. But recently more exact accounting procedures have been adopted in which specific individuals are directly compensated for their particular contributions. Some Indians now make a trip to Belém or Altamira (with the help of FUNAI officials) to buy the desired goods for the community.

Medical care is also important. Although they sometimes complain that Western medicine is not as good as their own, the Indians greatly appreciate the medical services provided by FUNAI. Even given the unpredictable nature of services like dental care and vaccination projects, the Indians are still willing to rush back to the village from distant trekking campsites whenever they hear that the FUNAI mobile health team has arrived in their village. Medical care is one of the most important aspects of Mekranoti ties with the outside world.

The medical services and limited trade opportunities offered by FUNAI have not been disruptive of Mekranoti society. The most important change has probably been the cessation of warfare. Instead of sending the younger men off on war expeditions, the Mekranoti now send them to collect Brazil nuts, It is easier to trade for Western goods than to fight for them. Native forms of social organization have been adapted to the modern situation. The Mekranoti continue to go on long treks. Age grades, men's societies, kin ties, and ceremonial friendships continue to organize people for various purposes, and a complex ceremonial life continues to occupy a good deal of Mekranoti time. The changes that have occurred since pacification have easily been met by the Mekranoti.

#### Concluding Remarks on Mekranoti History

A number of points might be made from this brief review of Mekranoti history. First, village splits and fusions seem to have been a way of life for the Mekranoti for a long time. Dissatisfied groups of people could always opt to leave a village if they did not approve of the political environment. Second, leaders could build up their followings using many different social institutions to define factions. In some village splits individuals defined loyalties with their relatives (e.g. Angme'ê's faction). In other cases factions were built from men's societies

(e.g. the original split-off of the Mekranoti from the Gorotire village). And in one case even age grade affiliation determined political loyalties (the construction of a new village after the fight over re-building the men's house). Another important point revealed by this history is the importance of warfare, shown clearly in the high percentage of deaths resulting from homicide. Finally, the limited number of ties the Mekranoti have with the larger Brazilian society has left these Indians with enough freedom to adapt their own institutions to the present situation. Like other, more acculturated Gê groups, the Mekranoti may continue to find ways to adjust their own institutions to modern conditions.

#### SUMMARY AND CONCLUSION

Having entered only recently into contact, the Mekranoti are still a basically non-stratified society. With more than adequate resources to meet subsistence needs, they have not yet been forced into a highly dependent relationship with the outside world. Their social structure and ceremonial life have not been disrupted. The social system continues to provide alternate ways to organize people for political and other purposes. The events of recent Mekranoti history illustrate well the ways factions have been built up from various different social institutions. This has allowed Kayapó leaders a great deal of leeway in building up followings.

In all, the Mekranoti are a suitable place to study leadership in non-stratified society. They provide a situation in which differences in material wealth are minimal, and in which wealth does not enhance leadership. They also provide for a large population necessary for statistical analyses and for evaluations of the variations in ways leaders acquire their positions.

## CHAPTER 3

## GATHERING AND ANALYZING DATA

Fieldwork is always a compromise between gathering ideal data and adjusting to local conditions. This compromise entails a number of special difficulties. First, there are the problems of learning a new language and new faces. Second, when residing with the people studied, maintaining cordial personal relationships often takes precedence over an ideal research design. It may be impolite to ask certain questions or to conduct interviews in private. Finally, the question of economic relationships looms especially large whenever the anthropologist must depend on his or her informants for food and other needs.

The Mekranoti are highly amenable to fieldwork. They are anxious to have "civilized" outsiders living among them to provide medicine and trade goods. With a surplus of garden foods they have no trouble feeding these outsiders. The day after I first arrived in the Mekranoti village with Gustaaf Verwijver, an anthropologist who had already lived among the Mekranoti for several months, the Indians began preparing us a shelter. They put a new floor on the chief's rice storage hut, built a clay stove, and constructed a latrine near the house. From the time of arrival the Indians provided us with more food than we could eat.

All of this generosity, of course, required reciprocation. For the first couple of weeks I let Gustaaf take care of our economic transactions. But I gradually adopted an economic system of my own in which each individual or married couple was given a 5 X 8 index card. Every time I received a gift from someone I wrote this down on his or her card. Later, whenever an Indian requested goods from me I could look up this card before deciding whether to give a "present." The Indians soon caught on to my accounting procedures. So by the end of my stay, if a man wanted trade goods, he would ask me what I wanted in "payment." We would then work out a deal in which I would trade, for example, a large aluminum pot for two "gifts" of meat, a load of firewood, and an hour-long interview. The system worked well. People considered it quite fair, and no one ever refused to be interviewed.

During the first four or five months of my stay among the Mekranoti I devoted myself to learning the language and to doing chores requiring a minimum of linguistic skills--censuses, genealogies, visits to gardens and time allocation studies. Later I added more difficult tasks--pregnancy histories, questionnaires about one's peers, and historical reconstructions. It was in the last three months of my stay that I administered psychological tests, and did observational studies in the men's house. Although there are always questions one forgets to ask, in general, fieldwork

provided the necessary data for the research I set out to do.

#### TYPES OF DATA

As described in the introduction, this study requires data on a number of variables. Not only must leadership be coded, but the personal traits and social ties thought characteristic of leaders must also be measured. As described in chapter 1, measures of aggressiveness, age, height, social insight, competitiveness, generosity, contribution to subsistence, knowledge, intelligence and social ties are all important to this study. The importance of other factors will become clear in later chapters. There are a number of ways to code this information. I used three kinds of data for leadership--census material on named leadership positions, peer ratings, and direct observations of influential behavior. For social ties I had recourse to genealogies (for kin ties), to censuses (for Kayapó groups and dyadic ties), and to sociometric data (for friendship ties). Codes for personality came from peer ratings, and from psychological tests. Other personal qualities, like expertise and physical characteristics were coded from census data and from peer ratings. Observational studies of time spent working were used to code people on their contributions to subsistence.

This study, then, draws on a number of different kinds of data. I relied most heavily on genealogies, censuses, and peer ratings. But all of the types of data are important and require separate discussion.

### Genealogies and Censuses

Genealogies and censuses were collected in the usual anthropological manner. I depended on a few (mostly older) informants to provide the bulk of information. For the genealogies I tried to get the names of everyone's parents, grandparents and parents' siblings, as well as the descendants of all of these. The Mekranoti only rarely remembered the names of more distant ancestors. In addition to asking for names, I also sought information on the cause of death, year of death, and age at death for ancestors. For people still living I asked for their present village affiliation. Many of the names that showed up in the genealogies were of people now living in other Kayapó villages.

In the censuses, information was gathered on household membership, age, age grade, men's/women's society membership, marital history, and specialized roles. In most cases people were fairly unambiguous about this information, so I could rely on a few informants. In the case of age, however, there was some ambiguity. In estimating age I first constructed an event calendar. The events that occurred when a person

was born or when reaching a particular age grade were compared with data from the event calendar to give approximate dates for birth. Later I also asked another informant to put people in the village into order from oldest to youngest. With a card for each person, I simply filed names according to the answers my informant gave to the repeated question: "Who was born first, x or y?" These rank orderings could then be compared with the dates of birth constructed through use of the event calendar.

#### Peer Ratings

Most of the data used in this research came from peer studies in which individuals were asked to rate each other on different traits. Peer ratings are especially useful in situations where the people being studied know each other well. Psychologists and sociologists have made extensive use of this technique to code personality and other characteristics of school children (Eron, Walder and Leskowitz 1971), co-workers (Roadman 1964; Roff 1950) and residents of small communities (Singh 1965). The technique is well suited to the field studies of many anthropologists, and it is somewhat surprising that it has not gained greater popularity in anthropology.

In the Mekranoti case I asked random samples of adults to give me the names of ten men and ten women to various questions (e.g. "Who is stingy?" "Who is

smart?"). I was forced to ask separately for ten men and ten women because the Mekranoti almost invariably named people of only one sex (generally men) unless specifically asked to do otherwise. Generally, a sample of 15 people was asked to answer any given question, but for some especially important questions the sample size was raised to 30. By polling random samples of individuals I could code every adult in the village on a number of different variables by simply counting up the number of "votes" he or she received from the opinion surveys. In all, the peer ratings generated a great deal of data with relatively little effort.\*

#### Sociometric Data

Besides asking random samples of people to give me names to various questions, I also asked every adult in the village to name two people with whom he or she hunted or gardened, and two people with whom he or she conversed during the idle evening hours. In this way I was able to code people on the number of "votes" they received as work or conversational friends, and also to examine networks of relationships in order to discern friendship cliques or factions.

#### Observational Studies

Some of the variables used in this research could be gathered by direct observation. The amount of time

\*The exact questions asked are shown in appendix 1.

individuals spent at various tasks was measured through a technique described by Johnson (1975). This technique consisted in making visits to randomly selected households at random times (between 6:00 a.m. and 8:00 p.m.) and writing down the activities of all the household members. The activities of absent members were reported by those present. Over the period of my field stay I collected almost 7000 such spot observations. The proportion of observations of any given activity were then taken to represent the proportion of time devoted to the activity. Thus, for example, if an individual was coded as gardening on 10 out of a total of 50 observations, he or she would be coded as gardening 10/50 or 20 percent of the time-- i.e. about 2.8 hours a day on the average (.20 X 14 hours per day). The rules for defining the activities to be coded were devised by the Human Ecology in Central Brazil project (see appendix 2 for forms) (Gross, et al. 1979).

Another set of data came from behavior observations of men's house meetings every morning and evening during my last few months in the field. These studies were carried out to obtain a more contextualized measure of leadership. The exact technique in which observations were made is described in chapter 4.

#### T.A.T.'s

During my final months in the field I carried out interviews in which I administered psychological tests

to every adult in the village. One test was a modification of the thematic apperception test (T.A.T.). Using five different pictures of related (but non-Kayapó) Indians, I asked Mekranoti adults to describe each picture, telling what the picture looked like, what the characters were doing, and what the characters would do later. Informants were told that there were no "right" or "wrong" answers; that any story they wanted to make up was okay. When informants failed to talk, I prompted with the following questions asked in sequence: "What does it look like?" "What are they doing?": "What will they do later?" In addition to an open description of the pictures, informants were also asked a specific question at the end of every story. For the first picture the question was "why is that person running?"; for the second, "why is that person drawing the bow?"; for the third, "why is that man talking while standing there?" for the fourth, "why is that woman standing there talking, while those two other women are seated?"; and for the fifth, "why is that person giving something to the children?"

These stories, then, combined the free-style form of thematic apperception tests with direct questions designed to elicit specific kinds of responses. Answers to direct questions could be used to code individuals along specific dimensions. For example, answers to the question, "why is that person running?"

could be used to code individuals according to whether they saw the character as running away from something (a passive response) or running toward something (an active response). The free-style stories that preceded direct questions on any story allowed for a more "loose" kind of coding that could later be used to code psychological variables I had not anticipated while in the field.

Coding of the T.A.T. stories consisted of a content analysis. A code sheet was prepared (see appendix 3) listing different details that might be mentioned in the stories. Additional space was also provided on the code sheets for the listing of any other details that did not already appear. Individuals were coded for different personality traits based on the content analysis of the details mentioned in their stories.\* To guard against coder bias an assistant and I coded

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\*There are some personality variables that might be important to a study of leadership, but that were not included in analyses because of problems with the data. "Achievement motivation," and "need for power" in particular, have been widely discussed in studies of our own society. I would have liked to deal with these variables. But, while I attempted to encourage achievement and power imagery in my choice of pictures for the T.A.T. studies, there were no achievement or power themes in any of the stories I got. Possibly, a different choice of pictures would have resulted in more variation on this variable. But barring return trips to the field, I am forced to rely on the data already collected.

these stories independently of each other. The averages of our codings were used as final scores.

To assure that informants' responses in the T.A.T.'s were not simply a result of their differing personal relationships to the interviewer, I also coded each informant according to his or her closeness to me, the anthropologist. Assuming that I was closest to those who traded most with me, I used the number of economic transactions recorded on my "accounting cards" as an indicator of closeness. I also coded informants for the number of prompts they received and for the length of their stories. When controlling for "closeness to anthropologist," "number of prompts received," and "length of story," the correlations of other variables with the T.A.T. responses reported in this study were virtually unchanged. I have therefore assumed that my personal reactions to individual Mekranoti could not account for the results of this study.

Psychologists do not agree on the theoretical foundations for projective tests. The justification given by behaviorists is not the same as that given by psychoanalysts. But behind these theoretical differences is a more common ground for interpretation of tests. In accommodating these different viewpoints, Lindsey (1961: 146) states that the basic assumption behind projective tests is:

If an individual is presented with a stimulus situation permitting variable responses, the particular responses he emits will reflect his characteristic response patterns and tendencies to respond.

In line with this assumption, researchers have noted general correlations of fantasy responses with indices of overt behavior (Mischel 1966: 167). It is generally safe to assume, then, that there will be some correspondence between responses on tests like the T.A.T. and actual behavior.

Nevertheless, there are some problems in drawing direct inferences about behavior from projective tests. Especially with regard to behavior that is negatively sanctioned, there may be some discrepancy between fantasy responses and overt behavior. It seems anxiety over punishment may inhibit overt behavior, but yet encourage fantasy expression. Particularly with regard to aggression, researchers have noted that in people who are punished for aggression, lower scores on behavioral measures correspond to higher scores on fantasy responses (Lindsey 1961: 139). The only way to check for this kind of reverse correspondence between fantasy and behavioral measures is to code for both. In chapter 5, then, I compare aggression responses from T.A.T. stories with reputational indicators.

The data from the T.A.T. stories was not as good as I had hoped. The correlations of other variables (including peer reputations for similar traits)

with T.A.T. codings were generally low or non-existent. And the reliability of personality codes, although significant, was generally low. Consequently, I used the T.A.T. stories primarily to measure variables for which I had no peer ratings. In evaluating the size of correlations found in this study, the reader should bear in mind that correlations with T.A.T. stories may be lower than with other measures primarily because of the measurement error involved.

The value of T.A.T. stories as measures of personality was not commensurate with the effort required to gather and analyze data. But there were some indirect benefits that made the stories worthwhile. First, they provided a good source of anecdotal data about customs and attitudes that I would otherwise have missed. When asking a question directly of an informant, I sometimes found it difficult to tell if the answer was given simply to placate the anthropologist. But a piece of information that appeared "out of the blue" in a T.A.T. story was easier to credit. Informants were certainly not pressured into a set answer. Second, the T.A.T. stories also helped in learning more of the Kayapó language. When I transcribed these stories from tape, and translated them with the help of an Indian assistant, I found myself picking up more and more of the language. Overall, the stories were worth doing, although perhaps not for the reasons I had intended.

### Other Data

In addition to the T.A.T. stories, I also gathered other data during these interviews. A short term memory test in which people were asked to point to dominoes in a specified sequence was used to get a more "static" view of intelligence. (The test is described more fully in chapter 5.) Height was measured by asking people to stand against a housepost calibrated in centimeters.

In an earlier series of interviews I also gathered data on pregnancy histories for Mekranoti women, political history, gardening and hunting productivity, and social and ceremonial life. These other kinds of data are used to give a more general background to the study of Mekranoti leadership.

### ANALYZING DATA

This study accepts the view that scientific methodology consists of a selection process in which only the best of alternate explanations survive empirical analysis (Popper 1959; Campbell 1970). Many different explanations for various leadership phenomena will be examined in order to sort out those that are most consistent with the Mekranoti data. As is always the case in the social sciences we cannot expect explanations to account perfectly for the data. Because of measurement error, and because other unknown factors may also be involved in any causal scheme, predictions are never perfect. As a result,

statistical techniques must be used to distinguish between poor explanations that account for little of the data, and better explanations that predict with greater accuracy.

Unless otherwise stated, the basic statistics to be used throughout this study are Pearson's  $r$ , partial correlation, and path analysis. The use of these statistics entails a number of problems, but the advantages probably outweigh the disadvantages. One problem is that these statistics require assumptions about the normal distribution of data and about the linearity of relationships between variables. These assumptions cannot always be met by the data. Nevertheless, many statisticians and social scientists (Kim 1975; Borgatta and Bohrnstedt 1972; Bohrnstedt and Carter 1971; Labovitz 1972; and Cohen and Cohen 1975) argue that violating some of these assumptions is preferable to sacrificing research design for the sake of "correct" statistics. They point out that  $r$  is a fairly robust statistic--problems of skewed distributions and of deviations from rectilinearity do not always result in serious deviations from the true relationships. Thus, these statistical techniques are not seriously hampered by minor violations of assumptions.

While the disadvantages to using these statistics may not be very great, the advantages are many. First,

several statisticians (Kim 1975; Labovitz 1972) argue that parametric techniques for multivariate analysis are superior to non-parametric techniques, even when dealing with data that do not meet all of the assumptions about "interval" level data or about normal distributions. According to Kim (1975), the parametric techniques are more clearly interpretable, and are "more compatible with the successive refinement of our measurement and theories and with the interplay between substantive theory and measurement." Finally, the comparability of  $\underline{g}$  with other measures of association (in the case of dichotomous measures, for example, Pearson's  $r$  is equivalent to  $\phi$ ) makes comparisons across different kinds of data more interpretable.

In the Mekranoti data, the major deviation from the assumptions behind these statistics was in the non-normal distribution of certain data. Some variables (particularly those derived from peer ratings which had a large number of "0" scores) resulted in skewed distributions. Labovitz (1972) and Bohrnstedt and Carter (1971) argue that it is better in such cases to take advantage of the measures as they are rather than to reduce the data artificially by, for example, dichotomizing data. The skewed distributions will probably result in somewhat lower values for  $\underline{g}$  than one might otherwise expect, but it is better to take advantage of all the information one has.

The problem of linearity was not serious in the Mekranoti data. A look at scatter plots of the correlations reported in the study did not reveal any obvious deviations from linearity. When relationships are not linear, the use of  $r$  as a measure of the relationship will underestimate the true extent of relatedness.

In evaluating all of the advantages and disadvantages to the use of parametric statistics in this study, it seems the advantages carry more weight. I have therefore relied on these statistics rather than alternatives in the analyses that follow.

In most instances, significance levels will be given along with correlation and regression coefficients. Significance levels indicate the confidence we can place on data results. Throughout this study, I use the following notation system for significance levels: Three asterisks, \*\*\*, indicates  $p \leq .001$  (i.e., the probability that the correlation is due to chance is less than one in one thousand). Two asterisks, \*\*, indicate that  $.001 < p \leq .01$ . One asterisk, \*, indicates that  $.01 < p \leq .05$ . And a plus sign, +, indicates that  $.05 < p \leq .10$ . When the probability that a relationship may be due to chance is very low ( $p = .05$  or less), it is conventional in the social sciences to consider the relationship as "significant." That is, we consider unlikely the possibility that a statistical relationship is due to chance.

When  $p \leq .10$  but  $p > .05$ , then we sometimes say that the relationship is "marginally significant." Significance levels reported here are one-tail. I use one-tail tests because all of the significant correlations reported in this study are in the direction predicted by hypotheses.

#### HOW GOOD ARE MEASURES?

Before looking for the relationships among different variables, we should first examine the quality of the Mekranoti data. There are two questions that arise when evaluating data of this sort. First, we need to know how stable our measures are. To what extent can we expect to get the same results if we carry out our measurements at different times, or if we use different samples or if different people do the coding? These are questions of reliability. Second, we need to know if our measures are really tapping what we think they are tapping. Sometimes researchers use measures that are not quite what they are intended to be. Income, for example, may be used as a measure of wealth. Success at putting a puzzle together may be used as an indicator of intelligence. But there are other ways to gain wealth besides income (e.g., inheritance), and some people may fail to put a puzzle together, not because they are stupid, but because they are bored with the task. How can we be sure that our measures are really getting at what

we want them to measure? This is the question of validity. While some data may seem, on face value, to be fairly reliable or valid, other data may present problems. Where the reliability or validity of measures is in doubt, special techniques can often be used to evaluate the extent of problems.

### Reliability of Measures

The different sets of data collected among the Mekranoti present different problems of reliability. For the peer ratings, the main question concerns the use of small samples. To what extent could we expect to get the same results if a different sample had been drawn? Another question concerns the stability of measures over time. Do the same people who rated high in October continue to rate high in May?

To get some idea of the cross-sample reliability of the peer ratings, I randomly divided the sample into two parts. (Since the original sample size was only 15 for most of the questions, this meant I had to split the original sample into one sample of seven, and one of eight.) How well did the "votes" people received from one sub-sample correlate with those received from the other? Table 3.1 shows the cross-sample reliabilities of the different variables for men and women. For men the most reliable ratings were of influence, culture mediator status, and knowledge of civilized ways. For women the most reliable ratings were

TABLE 3.1  
 CROSS SAMPLE RELIABILITIES OF PEER RATINGS  
 (MEN AND WOMEN)

Reputation for:	Men	Women
Influence (1) <sup>a</sup>	.87***	.64***
Influence (2) <sup>a</sup>	.88***	.67***
Intelligence (1) <sup>a</sup>	.58***	.47***
Intelligence (2) <sup>a</sup>	.69***	.56***
Culture Mediator (1) <sup>a</sup>	.80***	.78***
Culture Mediator (2) <sup>a</sup>	.89***	.20*
Aggression	.61***	.55***
Generosity	.55***	.64***
Good Looks	.65***	.74***
Knowledge of Indaan Ways	.67***	.63***
Knowledge of Civilized Ways	.81***	.18+
Knowledge of Ceremonies	.50***	.30**
Knowledge of Ancestors	.77***	.85***
Warrior <sup>b</sup>	.80***	--
Hunter <sup>b</sup>	.68***	--
Craftsman <sup>b</sup>	.54***	--
Painter <sup>b</sup>	--	.58***

\*\*\* p .001 (one-tail)

\*\* p .01 (one-tail)

\* p .05 (one-tail)

+ p .10 (one-tail)

<sup>a</sup>Peer ratings of influence, intelligence, and mediator status were taken at two different times during fieldwork. In each case a sample of 15 Mekranoti adults did the ratings. The samples from the two different time periods did no overlap.

<sup>b</sup>Only men were rated on warrior, hunter and craftsman statuses. Only women were rated on painting ability.

those of knowledge of ancestors, of good looks, and of influence. In general, ratings of men were much less ambiguous than ratings of women. Evidently, people were much clearer about men's than about women's statuses.

The primary utility of these reliability coefficients is in comparing different kinds of measures. People were fairly unambiguous about some ratings like influence but were less sure of others. There was not much agreement, for example, about which of the women knew most about civilized ways ( $r=.18$ ). This is easy to understand. None of the women are knowledgeable in this area. Only the men have served as informants to the missionaries or made trips to Belém, Brasília, or Altamira to buy trade goods or participate in meetings of the SIL missionaries. (On the other hand, people were much surer about which men knew most about civilized ways-- $r=.81$ ).

Besides cross-sample reliabilities it is also possible to examine reliability over time for certain variables. Questions about who was influential, intelligent or a mediator were asked at two different points in fieldwork--once in October, 1976 and again in April or May, 1977. The fifteen people who participated in the survey in April or May did not include any of the fifteen who had participated in October. This means that a comparison of the scores people received from the two different samples is a

comparison both over time and across samples. Table 3.2 shows that for both men and women, ratings on influence, intelligence and mediator status are all fairly reliable.

The major problem with the T.A.T. stories concerns the reliability of data analysis. Since the stories were free-style, they left a great deal of ambiguity of interpretation. To what extent would different coders come up with the same content analysis? To answer this question I had an assistant independently code the stories. A comparison of her codings with mine reveals the extent to which the stories could be coded unambiguously. Table 3.3 shows the correlations between the two sets of codes. Some variables were clearly more reliable than others. Codes for aggression and originality were poor (low  $r$ 's, even though significant), but for competition and realistic humility they were better.

Ambiguity of analysis was also a problem with the observations of men's house meetings. Loosely structured events in which people engage in numerous small conversations, and come and go, men's house meetings cannot be separated into easily distinguishable events. Consequently, coding leadership behavior was not an easy task. (The procedure used for coding leadership behavior is described in chapter 4.) I was basically interested in whether people gave suggestions, advice or orders, and

TABLE 3.2  
 RELIABILITY OVER TIME  
 (MEN AND WOMEN)

Reputation for:	Men	Women
Influence (October, 1976- April, 1977)	.86***	.79***
Intelligence (October, 1976- April, 1977)	.71***	.70***
Culture Mediator (October, 1976- May, 1977)	.91***	.66***

\*\*\*p < .001

TABLE 3.3  
 CROSS-CODER RELIABILITIES FOR T.A.T. RESPONSES  
 (MEN AND WOMEN)

Responses showing:	Men	Women
Aggression	.56***	.30**
Originality	.44***	.67***
Competitiveness	.57***	.78***
Realistic Humility	.77***	.87***

\*\*\*p < .01    \*\*p < .001

TABLE 3.4  
 CROSS-CODER RELIABILITIES FOR  
 MEN'S HOUSE OBSERVATIONS  
 (MEN ONLY)

Proportion of Leadership Acts to Time Spent in Men's House	.93***
Proportion of Leadership Acts to Attempts at Leadership	.82***

\*\*\*p < .001

whether others listened to them. But it was not always clear just what was going on in the confusion of a men's meeting. Ideally, I would have used independent observers to code leadership behavior. But since I was the only observer available, I had to rely on my own field notes of meetings. I did, however, use an independent analyst to extract leadership codings from the field notes. Transforming field notes into leadership codes was a fairly straight-forward process, and an independent coder and I agreed fairly strongly (table 3.4).

There was one other measure for which cross-coder reliability was calculated. As mentioned earlier, two Indian informants gave me the ages of everyone in the Mekranoti village. One informant gave absolute ages by referring to an event calendar. The other informant simply arranged people in their relative order of birth. How closely did these informants agree on ages? A Spearman's rho of .92 showed a high reliability for age codings.

The primary utility of reliability coefficients is in assessing the relative strength of any given measure. A low reliability is not a reason for eliminating a particular measure from all analyses. We may still want to check whether the variable has any predictive value for different hypotheses. But when a relatively unreliable measure fails to predict

as well as a more reliable measure, we must recognize that measurement error may be involved. It is in cautioning us against hasty rejections of hypotheses that reliability coefficients are of most value.

### Validity

While it is sometimes possible to get a fairly direct assessment of a measure's reliability, it is more difficult to assess validity. In general, if a measure is not already valid "on the face of it," only correlations with other measures of the same phenomenon can help to establish validity. In this study some attempt has been made to compare alternate measures whenever possible. Different measures of leadership are compared in chapter 4, while alternate measures of intelligence and of aggressiveness are compared in chapter 5. When different measures all result in similar codings we can be more certain of their validity.

### CONCLUSION

Using a large number of variables, this study is able to evaluate many different arguments about leadership acquisition among the Mekranoti. With correlational data and control analyses it is possible to distinguish among alternate causal schemes and to determine which explanations for leadership phenomena are most consistent with the Mekranoti data. This kind of analysis forces us to sharpen our arguments and make more precise predictions about what we expect to

uncover in the data. By eliminating or revising arguments that fail to conform to the data, and by specifying more clearly what factors are important in leadership acquisition, we can progress in our theorizing about leadership.

## CHAPTER 4

## RECOGNIZING LEADERS

While the pilots are still unloading his baggage, any traveller to the Mekranoti village is almost sure to be directed to two prominent Mekranoti individuals. Using mixed-language phrases like "capitão ne jã," and pointing with their noses, the Mekranoti introduce Bebgogoti, their chief. If the others have failed to express themselves adequately, Bebgogoti, himself, is quick to clarify matters by asserting, "ba, ibê capitão" ("I am the chief"). Soon afterwards, providing he has not gone out hunting to avoid the plane, Pykatire, the only Portuguese speaker, is also brought forward to act as a translator. As others watch on attentively, the traveller (especially if he has brought in a lot of baggage) explains his business in the community. There is little doubt in his mind that both Bebgogoti and Pykatire are important Mekranoti individuals.

In this chapter I am concerned with defining and recognizing Mekranoti leaders. As the above example illustrates, it is easy to come to quick conclusions about who the leaders in a community are. Anthropologists usually have little difficulty in recognizing the important people in the societies they study. But lurking behind these facile observations about leadership are some difficult problems. Foremost, is the question of specifying what we mean by leadership.

## DEFINING LEADERSHIP

The problem of defining leadership has plagued researchers for a long time. Stogdill (1974:7) remarks that there are almost as many definitions as there are studies of the subject. Concepts like power, authority, status, prestige and influence are debated over and over again in the literature. It is easy to get bogged down in the plethora of leadership definitions. But while many of the questions raised in these discussions may be useful in dealing with stratified societies, or when dealing with questions of bureaucratic organization, they are not particularly useful when studying societies like the Mekranoti.

As in most non-stratified societies, the Mekranoti have no formal means to enforce decisions through physical coercion. There is no clear-cut adjudication procedure. Nor is there any officially sanctioned means to punish transgressions. Individuals make up their own minds about whom to follow and about how to handle grievances. There are formal positions of leadership in the sense that certain individuals have titled positions. But these positions do not give their holders any real power to enforce decisions. If position-holders are unliked, they can lose their following to other individuals. Thus, formal power is not an important aspect of leadership. The concepts of influence and prestige are more appropriate. These

concepts are of practical value because they can be easily applied to the Mekranoti situation. It is possible to identify people who are more influential and prestigious than others. The concept of influence is also of theoretical importance. Most writers who talk about leadership in simpler societies emphasize the importance of individual influence instead of formal power or authority (cf. Lévi-Strauss 1944; Sahlins 1963). In this study, then, I will follow the precedent of those theorists who define leadership as the "exercise of influence" (cf. Stogdill 1974:9). Influence can be defined as the ability to have one's suggestions, advice, or orders accepted.

Having defined leadership in terms of influence, we are still left with the problem of devising leadership measures. Two major problems arise. First, there is the question of distinguishing mere figure-head positions from real leadership. As Burns (1978:427) puts it, "much of what passes as leadership--conspicuous position taking without followers or follow through, posturing on various public stages...--is no more leadership than the behavior of small boys marching in front of a parade." When working in foreign cultures with very different customs, the problem of distinguishing figurehead positions from actual leadership is a difficult one. The native terms we so freely translate as "chief" or "headman" may not really refer to leadership in the sense that we, as researchers, intend.

A second problem concerns the possibility that there are different kinds of leaders. Popular writers are fond of classifying leaders into different types according to the particular areas where they exercise influence. Burns (1978), for example, classifies leaders into such categories as "intellectual," "revolutionary," "bureaucratic," "legislative," and "executive." Maccoby (1976) divides corporate heads into "craftsmen," "jungle fighters," "company men," and "gamesman" types. Anthropologists have made similar distinctions. "Chiefs," "shamans," "war leaders," and "ceremonial specialists" are just a few of the different types of leaders anthropologists have discussed. But how important are these distinctions? Do they reflect actual differences in the real world? Are different "types" of leadership positions actually occupied by different people? Or do the same individuals end up on top in virtually all situations? It is important to answer these questions in order to know whether we must deal with many types of leadership or whether we can safely broaden our view to talk of leadership "in general."

This chapter, then, is concerned with two problems: 1) comparing native categories of leadership with observable influential behavior, and 2) testing to see whether there really are different kinds of leadership. Let us look at each of these in turn.

## NATIVE CATEGORIES OF LEADERSHIP AND OBSERVED INFLUENCE

The problem of distinguishing categories that are meaningful to natives of a culture from categories that are of interest to researchers is an important one. In some situations there may be a close correspondence between the two, but in other cases natives may have ideas very different from those of outside observers. In this chapter I am concerned with the relationship between native categories for leadership and leadership as defined in terms of influence.

In the example that opened this chapter Bebgogoti introduced himself as "capitão" to the traveller visiting his village. "Capitão" is a Portuguese word Indians have learned to use when referring to leaders in both Brazilian and Mekranoti societies. But there is also a native term, "benjadjw̃r," that, on the face of it, appears to carry much the same meaning. "Benjadjw̃r" is used to refer to both Mekranoti, and outside leaders, like then FUNAI President, General Ismarth de Araújo Oliveira, or the influential Indianist, Claudio Villas Boas. In the case of Bebgogoti, at least, "benjadjw̃r" status also appears to indicate influence.

There is little doubt to the outsider that Bebgogoti is an influential Mekranoti. When I asked the Indians when they were planning to go out on trek or burn their newly cleared gardens they often answered, "benjadjw̃r kaben kôt"--"when the benjadjw̃r (here Bebgogoti) says so" (i.e., on his advice or orders). In addition, a

certain amount of deference is sometimes shown for Bebgogoti. During interviews in my hut, informants would sometimes stop in the middle of what they were saying to tell me that the benjadjw̃r was passing by. They would not begin until he was out of audible range. (Other Indians were more easily ignored.) Bebgogoti also has a few other capacities which we would associate with leadership. At night, or just before dawn, he sometimes saunters about the plaza between the men's house and the circle of domestic homes and preaches to the villagers about being good to each other, and working hard. Finally, Bebgogoti is also respected for his knowledge of special songs, ceremonies and history. By many different standards, then, he is an influential man.

But Bebgogoti is not the only individual to be called benjadjw̃r. In some contexts he is said to be the chief (I will translate "benjadjw̃r" as "chief") of his men's society; another man, Kokoreti, holds this title in the other society. Sometimes a distinction is made within Bebgogoti's men's society between the older and younger sections. In this case two other individuals, Ajo and Bepkum, share the title of benjadjw̃r for the younger section. Two women, Rikkaro and Prekti, are sometimes called the benjadjw̃r of the two Mekranoti women's societies. All of these people appear to have some influence in that they all head formally constituted groups.

But there are other individuals called benjadjwÿr whose influence may be questionable. Bötire, Bebgogoti's youngest son, has occasionally been referred to as "chief" because, according to the Indians, FUNAI's official in Belém once casually remarked that Bötire could inherit his father's position. Bemotire, an old, red-headed and freckled Brazilian, captured as a little boy in a Kayapó raid, insists that he is a chief because some time ago a former Kayapó leader named him as a successor. Bepnhÿrti, although more modest in his claims, is also considered a benjadjwÿr because he was taught the special language only chiefs know. On rare occasions one also hears that Ngrenhkampy, an older woman, deserves to be called benjadjwÿr, although I never understood just why.

Just as there are some people titled "chief" who do not appear to wield much influence, there are other people who make no claims to a title, and yet appear quite influential. Pykatire, the sole Portuguese speaker, is a central figure in any Mekranoti transactions with Brazilian society. Some elders give public speeches around the men's house while others act as shamans or songleaders, and yet these people are not considered chiefs. Many are greatly respected for their knowledge, craftsmanship, or bravery in war, and yet they carry no special titles.

Just what is the relationship between the title of "benjadjwÿr" and influence? Is it possible that

benjadjw̃r status among the Mekranoti is really only a ceremonial or figurehead position? According to Thomas (1959:183) the status of "headman" among the Bushman carries no leadership function at all. Might the same be said for the Mekranoti benjadjw̃r? Could my translation of benjadjw̃r as "chief" be incorrect? Etymologically, "benjadjw̃r" really refers to the knowledge of certain songs and speeches (ben) used on special occasions like the receipt of a valuable gift from a distant village. Among the Xikrin, a related group of Kayapó, a completely different term--ngôkônbâr--is used to refer to the political head of the village, while the benjadjw̃r role is limited to ceremonies (Vidal 1977:146-148).

The best way to understand the relationship between benjadjw̃r status and leadership (as defined in terms of influence) is to compare the native category of benjadjw̃r with other more behavioral measures of influence. The native category has already been described. Since the labelling of an individual as benjadjw̃r was fairly straight-forward, I simply used the statements of informants who helped me with the census material to code specialized roles of this sort.

For the peer ratings, randomly selected Mekranoti adults were asked to name ten men and ten women in response to the question: On whose advice (orders, suggestions) do you Indians do native "things." I took advantage of this distinction in order to clarify

that I was interested in native kinds of leadership rather than government appointments. (As will become clearer later in this chapter, this distinction was unnecessary. The Mekranoti do not differentiate between these different kinds of leadership. In fact, FUNAI does not "appoint" Indian officials in this village.)

The men's house observations were much more behavioral in character. As is often the case with behavioral measures, these observations were much more difficult and time-consuming than were other measures. I therefore limited myself to observations of a sample of 20 men,\* one of whom never appeared in the men's house and so could not be coded. Following a fixed sequence, set up at the beginning of each meeting, I passed from one man to the next, spending a fixed amount of time on each individual. The order

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\*In order to assure myself that enough leaders of different ages would appear in this small sample to make control analyses possible, I used a stratified sampling procedure. Dividing the married men into older and younger groups, I selected for observation the five older men who rated highest on the peer leadership ratings, the five younger men who rated highest on the peer ratings, the five older men who rated lowest, and the five younger men who rated lowest.

Unfortunately, I could not make comparable observations for women's leadership. While in the village women do meet in groups (at the river, at occasional painting sessions, and at rare communal harvests) where their behavior can be observed, but during the last two months of my stay when I made the men's leadership observations, the village was out on trek. With no institution like the men's house to put women together, a comparable study of women's leadership behavior became impossible. The labor investment to carry out such research would have discouraged such a project in any case.

of individuals to be observed was set up anew for each meeting. Although it might have been preferable to use a randomizing technique, this proved unworkable because attendance varied greatly from one meeting to the next. I had to set up a sample that consisted of those present and visible to me (it was usually dark). The sequence set up at the beginning, however, was followed throughout a meeting, even if people arrived or departed in the middle. Time intervals were marked off with a stopwatch.

As I observed a man, I paid particular attention to any behavior of his that would indicate leadership. I was particularly interested in behavior that demonstrated an ability to influence the actions of others. It was not easy to tell when a man had an effect on other people. But one indicator was the kind of response he got when speaking to the crowd, or when initiating a conversation. I never saw the Mekranoti give negative verbal responses in situations like this, so almost any response could be considered positive. I therefore coded an act as "influential" whenever an individual received any responses at all to what he had said. Another indicator of influence was the giving of advice or orders to others. I distinguished between pro-social advice and non-social advice. Pro-social advice consists of suggestions intended to help the individual(s) receiving it, or the group as a whole. When giving such advice, a man usually has the attention of a large

portion of the crowd. As an example, elders sometimes advised the younger men on how to bring back more game for the villagers. Non-social advice and orders are given for the sole benefit of the person who is speaking. When giving such advice a man usually has the attention only of those who are being addressed. One man, for example, might ask his neighbor or his child to "pass the bananas." The giving of pro-social advice was coded as an "influential act."

To code for a lack of leadership I took advantage of failures to get responses from the crowd. Although people rarely got negative responses during men's house meetings, they were sometimes ignored. Whenever someone failed to get a response after addressing someone, I coded this as a "non-influential" act. I also coded men as "non-influential" whenever they got cut off in the middle of their sentences.

Since some men appeared more often than others in the men's house, I could not calculate leadership scores directly by adding up the number of times individuals got responses or gave advice. Instead, I had to use a proportion. Men's leadership scores, therefore, were calculated by dividing the number of "influential acts" (getting responses + giving pro-social advice) by the total number of times a man's name appeared in the men's house observations. Since this score penalized a man for remaining silent during a meeting, a second score was also calculated by

dividing influential acts by the total of "influential acts" + "non-influential acts." This second score compares successful attempts at leadership to non-successful attempts. The resulting scores for the 19 men observed could then be compared with other measures of leadership.

Tables 4.1 and 4.2 show the relationships between different leadership measures for both males and females. Intercorrelations were moderate to high. The men called benjadjwyr rated much higher than other men in the peer ratings of influence ( $r=.59$ ). They also rated somewhat higher in the men's house observations ( $r=.36$  and  $r=.38$  for the correlations with the different men's house scores). The peer ratings also correlated well with the men's house observations ( $r=.56$  and  $r=.58$  for the different scores). The situation for women was comparable--those referred to as benjadjwyr generally received more votes on the influence ratings than did others without the title ( $r=.66$ ). In general, one could argue from these correlations that, no matter how leadership is measured, the same individuals end up on top.

Although statistics reveal moderate to high correlations between alternate measures of leadership, this does not necessarily mean that the different coding procedures were actually tapping exactly the same phenomenon. As with similar correlations in the

TABLE 4.1  
ALTERNATE MEASURES OF LEADERSHIP  
(MALES ONLY)<sup>1</sup>

	Titled Position as Chief	Peer Repu- tation	Men's House "A"
Peer Reputation for Leader- ship	.59***		
Men's House Ob- servations "A" (proportion of leadership suc- cesses to attempts at leadership)	.36*	.56**	
Men's House Ob- servations "B" (proportion of leadership suc- cesses to time spent in the men's house)	.38*	.58**	.68***

<sup>1</sup>Correlations with the men's house observations are based on a sample of 19 men. The correlation between titled position as chief and peer reputation for influence is based on a sample of 63 men.  
\*p < .05, \*\*p < .01 \*\*\*p < .001

TABLE 4.2  
ALTERNATE MEASURES OF LEADERSHIP  
(FEMALES ONLY, N=73)

	Titled Position as Chief
Peer Reputation for Leadership	.66**

\*\*p < .01

psychological literature about personality (see Mischel 1968), researchers could easily draw opposite conclusions from the data. One could argue that the different measures were simply different ways to get at the same phenomenon. But others could argue that the measures tapped related but clearly distinct phenomena. Perhaps, in the end, the decision to interpret the data in one way or the other is really less important than the recognition that different measures are closely related. If the Mekranoti role of "benjadjw̃r" does not correspond exactly to our notion of "leader," it obviously carries at least some of that meaning.

Although leadership seems to make up a large part of the benjadjw̃r role, it would be interesting at this point to speculate on some of the other aspects of benjadjw̃r status. This can help us gain insight into the relationship between the different measures. By highlighting the differences between our concept of leadership (defined in terms of influence) and the Mekranoti category of benjadjw̃r, we may better understand why the Mekranoti have given "benjadjw̃r" the meaning it has.

The best way to pinpoint the difference between the words "leader" and "benjadjw̃r" is to look more closely at those people who are called benjadjw̃r but yet score low on more behavioral measures of leadership, like the peer ratings. Actually, there

are only two such people, Bemotire, the old Brazilian, and Bepnhÿrti.\* Bemotire received no "votes" at all, and Bepnhÿrti received only four "votes." Bemotire's "benjadjwÿr" status could easily be explained as the attempt by Indians to humor an old man's delusions of grandeur, much as we in our society may flatter the elderly and senile in order to get them to do what we want. The mockery disrespectful children sometimes make of Bemotire's speech-giving supports this view. But Bepnhÿrti's status is a bit more difficult to explain away. If knowledge of "chief's speech" really is a determining factor in acquisition of "benjadjwÿr" status, as Bepnhÿrti claims, then the term, "benjadjwÿr," must mean more than just "influential." Perhaps a long historical association of leadership positions with "chief's speech" has resulted in a double meaning for the term. Other figurehead titles, like that of the Bushman "headman" (Marshall 1960) or the English "queen" may have similar historical associations with actual leadership positions. In any case, examining how titles relate to actual leadership behavior is an interesting topic for anthropological inquiry.

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\*All of the "benjadjwÿr" of the men's and women's societies (Bebgogoti, Kokoreti, Bepkum, Ajo, Rikkaro, and Prekti) rated higher than anyone else on the peer ratings. In addition, Ngrenhkampy rated fourth in the women's ratings, and Bötire rated eighth in the men's ratings.

To briefly summarize this section, we can conclude that the different measures of leadership examined here are closely related. The Mekranoti category of "benjadjwyr" corresponds well with more behavioral measures of leadership. But there may also be other meanings to the word, "benjadjwyr," that do not correspond to actual leadership positions. Therefore, in future chapters of this thesis, I will rely on the peer ratings of influence as my measure of leadership. While codings from the men's house observations would also provide behavioral measures of leadership, these observations were carried out for only a small sample of Mekranoti men, and so cannot serve for a village-wide study. The peer ratings were used to code all Mekranoti men and women and so are better suited to the aims of this thesis.

#### ARE THERE DIFFERENT KINDS OF LEADERS?

Are different people required for different kinds of leadership tasks, or do the same people monopolize leadership of all kinds? Earlier in this chapter I pointed out some of the different typologies writers have devised for leadership in the United States and elsewhere. Readers often get the impression from this literature that different kinds of people must fill contrasting leadership positions. It sometimes comes as a surprise, then, to learn that the same individuals often end up on top in various domains. Maccoby (1976) comments a great deal about the movement of leaders

from academic to corporate, political, or military spheres. (Kissinger is a prime example.) Stogdill (1974:175), in reviewing a number of statistical studies, argues that there is "strong evidence in favor of the view that leadership is transferable from one situation to another." At least for our society, it seems that leaders can adapt themselves to many different situations, so that they rise to the top no matter what they do.

In contrast to this somewhat "elitist" view of leadership in the United States, Fried (1967:66,134-135) presents a more "democratic" view of leadership in non-stratified societies. According to Fried, "egalitarian" leaders can claim influence and prestige only in their particular areas of expertise. Thus, for example, a good hunter may be influential in decisions about tracking animals and may be highly regarded for the game he bags, but he will not carry this prestige to other areas. Good orators will receive more respect in speech-giving; good craftsmen will make the decisions about what to manufacture; and fierce warriors will be praised for their valor.

Fried's view of leadership in simpler societies contrasts rather sharply with that of Lévi-Strauss. According to Lévi-Strauss (1944), there is a "natural leadership" which fails to manifest itself clearly in complex societies, but does show up in simpler cultures. This universal leadership is born of "those psychological

raw materials out of which any given culture is made." Whereas Fried sees different tasks requiring different kinds of people to fill leadership roles, Lévi-Strauss sees leadership qualities as universal.

Which of these two views is most correct? This question is of great interest in itself, but it is also important in deciding how to operationalize the concept of leadership. If Fried's more "democratic" view is correct, then "overall" influence cannot be coded. Only more narrow definitions of particular kinds of leadership will do. On the other hand, if the same individuals monopolize influence and prestige in many different areas, as Lévi-Strauss contends, then leadership can be defined in more general terms.

#### "Types" of Leaders in Lowland South America

In the simpler cultures of lowland South America leadership tasks seem almost as varied as in our own society. Leaders may direct war expeditions, decide when a village is to be moved, judge the innocence or guilt of an accused individual, serve as an intermediary between Western and native societies, or act as a storehouse for ceremonial and mythical knowledge. In delineating these various types of leadership, anthropologists and others who study our own society often give the impression that very different individuals must fill the contrasting leadership positions.

In one interesting study, Kracke (n.d.) distinguishes between war leaders and peacetime leaders. He argues

that different leadership styles among lowland South American societies may be attributed to the presence or absence of warfare. A more consensual and encouraging style is adaptive during peacetime, when leaders must keep their followers happy enough to stay together. In warfare situations a more domineering and authoritative style is preferred in order to provide for quick decision-making. Studying two different Kagwahiv headmen, Kracke justifies his argument by showing how one older, domineering headman, who attained his position during past war exploits, began to lose his constituents, on pacification, to a younger, more consensual leader. Again, readers are given the impression that very different individuals must become either domineering or consensual leaders. But, sometimes, it seems, leaders can change their styles to match changing conditions. Apowen, the old Shavante chief, for example, is now a quiet consensual leader, although he once struck fear into the hearts of any Shavante who opposed his politics because of his reputation as a killer (Nancy Flowers, personal communication).

Another common distinction is between shaman and headman roles. In two well known studies Dole (1966,1974) illustrates the real power shamans can sometimes hold in simpler societies. Among the Kuikuru, headmen may have say over some decisions, such as when to move a village, but it is the shaman, with supernatural aid,

who divines witches and thereby sanctions punitive reprisals--the only form of Kuikuru legal redress. Dole presents the shaman and headman roles as belonging to quite different individuals, but elsewhere, as among the Tapirapé (Wagley 1977:243), the headman also acts as a shaman.

One of the leadership roles to appear in many non-Western societies is that of the culture mediator, who serves as a go-between for contacts between the native culture and the larger dominant society. In Murphy's classic (1974) description of one such would-be culture mediator among the Mundurucú, we are told that a failure to achieve success in this role resulted from a lack of understanding of the more traditional Mundurucú chieftaincy. Murphy, then, sees the two roles as coinciding. But among the Tapirapé (Wagley 1977:269), the major culture mediator was not considered a chief.

Finally, a number of other leadership positions might also be posited for groups of this type. Some individuals, for example, might gain renown and influence in specialized knowledge. Leeds (1969:390) argues that, at least among the Yaruro, knowledge (esoteric knowledge) is too uniformly distributed among the population for individuals to gain special influence in these areas. But Basso (1973:113) tells us that certain Kalapalo are recognized as especially learned in native hymnody or ceremonial artifacts manufacture.

She argues further that prestige gained from such knowledge is unrelated to political influence.

It is possible that real societal differences are responsible for these apparent variations in the distribution of leadership roles. But, given the general similarities of many of these cultures, an alternate possibility is that the small samples of leaders chosen in each society may give a false impression of cultural variation. Only more thorough studies of each culture can reveal consistent leadership patterns which would make for more accurate comparisons.

#### "Types" of Mekranoti Leaders

Among the Mekranoti there are a number of areas where individuals can exercise influence or prestige. Titled positions such as shaman (wayanga), or song leader (ngô-ngrê-djwÿj), and special functions such as haranguing certainly carry a prestige all their own. In addition, individuals may excel in many different areas--hunting, crafts, body painting, warfare, or dealing with outsiders--and may gain reputations for special knowledge of foreigners, Indian customs, ceremonies, or the ancestors. Undoubtedly, many more Mekranoti "specialties" could be distinguished, but the ones already mentioned should be enough to evaluate the notion of primitive "elitism."

Shamans. Mekranoti shamans exercise their special powers primarily in curing rituals for which they demand

a high fee. The rituals usually consist of chanting and spitting tobacco over the patient's ailing body parts. Occasionally, when an epidemic has made remaining in a village unhealthy, the shaman may also exhort the Indians to take off for the forest. Unlike their Kuikuru counterparts, Mekranoti shamans do not divine guilty sorcerers. Most sorcery (djydjy) resulting in sickness or misfortune is thought to come from foreigners whom the Indians do not know. I heard of no case of a Mekranoti being accused of sorcery. With the recent provision of free medical services by the Brazilian government, shamans have lost some of their medical business and often argue with their potential clients about the virtues of Indian versus Western medicines.

At the time of fieldwork, fourteen men and two women served as shamans in the Mekranoti village. All of them earned their titles primarily through a demonstration of knowledge about medicinal plants and practices, although having personally suffered through the malady in question enhances their prestige. There is also some feeling that the title should pass from parents to children.

Songleaders. The position of songleaders seems to be relatively unimportant in Mekranoti society. Coming to the fore only at special moments in ceremonies, these leaders direct special dances and songs. All

Kayapó inherit some ceremonial privileges (like wearing special festival ornaments) from their ngêt (MB, MF, FF) in the case of boys, or from their kwatýj (FZ, FM, MM) in the case of girls. The position of songleader is really just one very special ceremonial privilege. On census-taking, only three men and no women were labelled songleaders.

Haranguers. Almost every night about 9:00, or just before dawn, an older man saunters about the central plaza between the men's house and the circle of domestic homes preaching to the people. Wandering from one subject to the next, he recounts myths, tells stories of the ancestors, acts out past war episodes, harangues the people about their misbehavior, and occasionally gives advice or asks for opinions from his audience (both male and female). Only certain Mekranoti elders may preach in this manner. While out on trek a fledgling haranguer may make an attempt at this traditional Kayapó oratory, but if he fails, he will not try to repeat his venture back in the village. In the main village six men perform all of the nightly harangues.

Hunters. All men must go out hunting, but some are better at bringing back game than others. When a gunshot is heard in the vicinity of the village, people often try to guess who did the shooting, and what kind of animal, if any, was killed. If Kokomati fired the

shot, people make optimistic predictions about the outcome, and his wife may make a trip to the river to fetch water for boiling. If Nêre was the hunter, people are more pessimistic. Nêre has a bad reputation as a hunter. He has trouble with directions and does not always understand just where in the forest others have told him to look for game. He often gets lost. Since sponsoring a ceremony requires a man to supply the villagers with game for several months ahead of time (in payment for the tortoises they collect for him while on trek) a poor hunter is at a great disadvantage in seeking out this means to Kayapó prestige.

Craftsmen. Mekranoti men take great pride in their ability to manufacture various handicrafts. Often when the Mekranoti want to express how intelligent someone is they refer to the things he knows how to make. Finishing his first woven Kayapó sleeping mat (usually in late middle age) is a great accomplishment, for many men never learn how to make them. To impress on me how stupid one of the older men in the village was, the Mekranoti would often exclaim that he didn't know how to make even the simplest handicrafts.

Body painters. Just as men attain prestige through craftsmanship, women show off their talents in body painting with genipap dye. Spending hours

everyday drawing intricate stripe-line designs on their children, Kayapó women are justly renown for their artistic creativity (see photograph 4.1). The Mekranoti are quick to notice especially fine body decorations.

Warriors. The Mekranoti acquired a reputation in all of Brazil for their frequent warfare. Justifying their aggression as a means to acquire loot, to kidnap children, or to wreak vengeance from their enemies, the Mekranoti organized raiding parties that took them far from their home village. Usually they organized themselves on an informal basis with no clearcut war leaders. But some individuals did become known for their valor and for the large number of enemies they had killed.

Culture mediators. While only one Indian speaks any Portuguese, a number of Mekranoti have been to Brazilian cities like Belém, or Altamira for medical treatment or shopping expeditions. Some have gained reputations as experts in dealing with such foreigners as FUNAI officials, missionaries, and anthropologists, and their advice is sought when dealing with these people. Sometimes culture mediators accompany other Indians when the latter are afraid of getting an unfair deal in trade with outsiders.

Knowledgable authorities. There are a number of areas where Indians can gain respect for their knowledge.

PHOTOGRAPH 4.1

MEKRANOTI BOY PAINTED FOR THE KOKO CEREMONY



Often during interviews informants would complain that they did not know the answers to some of my questions, but they would recommend certain other Indians as consultants. While many kinds of knowledge could be singled out, I distinguished the following: knowledge about Indians, knowledge about ceremonies, knowledge about the ancestors, and knowledge about civilized ways.

Distinguishing all of these different types of leadership roles may make it seem that the Mekranoti have many different kinds of leaders. But, as with studies elsewhere, we cannot tell at this point whether different people actually occupy different leadership roles or whether the same people lead in all kinds of areas. The anecdotal data presented so far about the Mekranoti are inconclusive. Bebgogoti seems to hold influence and prestige in a number of different areas. But others, like Pykatire, seem to have more limited leadership functions based on specialized talents (in this case, speaking Portuguese). Which of these two men is the exception, and which the rule?

Only a more systematic look at the Mekranoti can resolve the question of leadership types. By examining a large number of cases we can get a better picture of the extent to which the same individuals monopolize

different "types" of leadership. To provide such systematic data, every Mekranoti adult was coded on a number of leadership variables.

While normal census taking was enough to determine roles like shaman, songleader, or haranguer, coding prestige in other areas required more "etic" types of measures. The following questions asked of a randomly selected peer group (see chapter 3) yielded the votes necessary to rate individuals in these other "specialties"--Who bags a lot of game? (hunter); Who knows how to make a lot of handicrafts? (craftsman); Who paints people well? (painter); Who has killed enemies well? (warrior); Whose advice do you follow in dealing with civilized people (culture mediator); Who knows a lot about civilized ways? (knowledge of civilized ways); Who knows a lot about Indians? (general knowledge); Who knows ceremonies? (knowledge of ceremonies); And who knows about ancestors? (knowledge of ancestors). Once individuals were rated on all of these different "types" of leadership, it was possible to tell the extent to which the same individuals monopolized various kinds of influence and prestige.

Tables 4.3 and 4.4 show the intercorrelations among these different kinds of leadership for both males and females. The correlation coefficients are generally fairly high, indicating that much the same

TABLE 4.J  
DIFFERENT TYPES OF LEADERSHIP AND PRESTIGE  
(males only, N=63)

	2	3	4	5	6	7	8	9	10	11	12
1.General influence	.28*	.36**	.45***	.40***	.61***	.59***	.95***	.51***	.71***	.60***	.66***
2.Shaman		-.06 <sup>a</sup>	.48*** <sup>b</sup>	.27*	.30**	.54***	.18+	.65***	.39***	.56***	-.10
3.Song leader			-.07 <sup>c</sup>	.26*	.00	.41***	.30**	.09	.58***	.32**	.15
4.Haranguer				.08	.38***	.49***	.34**	.58***	.43***	.63***	.03
5.Hunter					.46***	.61***	.37**	.05	.85***	.28*	.31**
6.Craftsman						.40***	.54***	.33**	.38***	.28*	.40***
7.Warrior							.48***	.54***	.79***	.68***	.19+
8.Culture-Mediator								.45***	.61***	.43***	.78***
9.Knowledge of Indian ways									.52***	.74***	.18+
10.knowledge of ceremonies										.75***	.26*
11.knowledge of ancestors											.16
12.knowledge of civilized ways											

<sup>a</sup>Both variables are dichotomous.  $\phi = -.06$ ,  $\chi^2 = .22$ , n.s.

<sup>b</sup>Both variables are dichotomous.  $\phi = .48$ ,  $\chi^2 = 14.35$ , Yates corrected  $\chi^2 = 10.73$ ,  $p < .001$  (one-tail)

<sup>c</sup>Both variables are dichotomous.  $\phi = -.07$ ,  $\chi^2 = .32$ , n.s.

+ $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

TABLE 4.4  
DIFFERENT TYPES OF LEADERSHIP AND PRESTIGE  
(FEMALES ONLY, N=.73)

	2	3	4	5	6	7	8
1.General Influence	.25*	.47***	.89***	.53***	.61***	.45***	.11
2.Shaman		-.13	.23*	.08	.09	.16+	-.11
3.Painter			.44***	.20*	.26*	-.03	.26*
4.Culture Mediator				.43**	.47***	.38***	.15+
4.Knowledge of Indians					.67***	.73***	-.02
6.Knowledge of Ceremonies						.75***	-.05
7.Knowledge of Ancestors							-.25*
8.Knowledge of Civilized Ways							

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

individuals end up on top in most situations. The general influence reputations correlate with all of the other prestige and leadership variables except for "knowledge of civilized ways" in the case of women. Interrelationships among the other variables are also close. But some correlations are much higher than others. For obvious reasons, among the men, knowledge about civilized ways is closely related to a role as culture mediator. Similarly, knowledge about Indian customs and about the ancestors is also vested in much the same individuals. The most independent area of prestige for both men and women is in "knowledge of civilized ways." The men who know about civilized ways are not the same men who are shamans, songleader, haranguers, or authorities on the ancestors. The women who know about civilized ways are not the same as those who know about ceremonies or Indian ways, or who act as shamans or general leaders. Overall, though, the picture that emerges from these correlations is one of a great deal of "elitism." The same "renaissance men" rate high in almost all situations.

As in the previous section, there may be some question about whether these measures are tapping the same phenomenon or not. In general, it seems informants were answering the peer questions directly, thinking of names appropriate to any given question.

Intuitively, the final scores individuals received to different questions made sense to me since I knew these people first hand. But the extremely high correlations (.95 for men, and .81 for women) between status as a "mediator" and "general influence" may be suspect. The peer questions used for both of these variables were similar in structure--"Whose advice do you follow to do Indian things?" And "whose advice do you follow to do things for civilized people?" Is it possible that informants interpreted these two questions as the same thing? I think not. The ratings of Pykatire, the only Portuguese speaker, were not very high on "general influence," but they were high for "culture mediator." Apparently, people made a distinction between these two questions. I suspect that there is a high correlation between these two variables because in fact it is much the same people who lead in both areas. But apparently the "culture mediator" variable is measuring leadership more than it is measuring real knowledge of civilized ways ( $r = .95$  with general influence, and only .78 with knowledge of civilized ways for men). In future chapters, then, I will use "knowledge of civilized ways" as an indicator of a role as culture broker in order to avoid confusing two closely related measures of leadership.

Leadership Types in Other Societies

The findings from this section suggest that leadership among the Mekranoti is highly transferable from one situation to another. This parallels findings from studies in the United States, and we might question whether other cultures also distribute leadership roles in this way. In a series of studies carried out in villages in India, researchers (Singh 1965; Singh et al. 1965; and Yadava et al. 1973) found leadership patterns very similar to the ones reported here. Intercorrelations among agricultural, traditional, political, informal, and caste leaders were very high. In a less systematic study, Ottenberg (1971) found similar overlap in leadership positions among the Igbo. All of this suggests a rather pervasive trend for the same people to occupy all kinds of leadership positions. Still, the Igbo, India, the United States and the Mekranoti are only four societies; it is possible that in some place leadership may still conform to Fried's model of egalitarian society, in which different people gain prestige in different areas. But lacking more systematic data from other societies, Fried's model has little to support it. The "renaissance man" approach of Lévi-Strauss seems closer to the truth.

In concluding this section on leadership types, I should mention the implications of these findings for coding leadership. Since the same people end

up on top in many different areas of influence and prestige, this suggests that "overall" influence is a valid concept. In future chapters, then, I will rely on the "general" measure of leadership from the peer ratings. Answers to the question: "whose advice do you (Indians) follow to do native things?" will be used to code "general" leadership.

#### SUMMARY AND CONCLUSIONS

In examining the relationships between different leadership measures, this chapter addressed some basic questions about the nature of leadership in simpler societies. First, the data showed a relationship between titled Mekranoti "headman" positions and actual leadership behavior. This suggests that, despite some exceptions, native categories correspond rather well with our own ideas about influential behavior. Second, the data also showed a tendency for the same people to occupy different kinds of leadership positions. This supports a more "elitist" picture of leadership in simpler societies than some have supposed.

In adopting an empirical approach to the problem of recognizing leaders, this chapter showed that the same Mekranoti individuals end up on top regardless of how leadership is measured. This suggests that the best way to look at Mekranoti leadership is to use a general definition in which the specific area of

influence or prestige is not specified. The following chapters, therefore, will depend most heavily on the peer ratings of general influence.

## CHAPTER 5

## WHAT ARE LEADERS LIKE?

Before examining alternate explanations for why certain kinds of individuals (men, older people, the chief's sons) enjoy leadership advantages over others, I would like first to give a more general picture of the kinds of people who become leaders in Mekranoti society. A review, one by one, of some of the factors anthropologists have associated with leadership provides a background that can be used as a basis for further questioning.

When I asked the Mekranoti how specific individuals became chiefs, their answers varied greatly--"Because Bepkamati (an ancestral chief) named him as a leader." "Because his father was a chief." "Because his maternal uncle was a chief." "Because a FUNAI official named him a leader." "Because he has a lot of kin." "Because he is strong." "Because he is smart." "Because he talks well." "Because he is generous." Or simply, "because, I don't know." These are just a few of the many different responses I got to such questions. It is probably unreasonable to expect anything else. After all, specialists have difficulty identifying exactly what it takes to become a leader in our own society. Why should we expect the Mekranoti to know any better how one becomes a leader. The question is a complex one whose answer is not immediately obvious.

Anthropologists, when describing the process of leadership acquisition in different societies, stress the importance of two broad factors--personal connections (whom you know), and personal characteristics (who you are). As for connections, anthropologists usually concentrate on ascribed genealogical ties (e.g., Chagnon 1979), but acquired connections are also discussed--especially affinal ties (Hart and Pilling 1960), economic ties (Oliver 1955), and friendship ties (Harner 1973:201). The personal characteristics anthropologists discuss include both physical traits like age, sex (see Freid 1967) or height (Gregor 1977) and mental traits like intelligence, originality or "fierceness." It is difficult from most anthropological accounts to evaluate the relative importance of each of these factors. We are simply told that all are helpful in becoming a leader. In this chapter I will try to give a more exact picture of leadership by using statistical analyses to sort out the "important" from the "not so important." Beginning with arguments that see leadership as a matter of personal connections, I will continue with arguments about personal characteristics.

#### PERSONAL CONNECTIONS

The kinds of connections that can help one get ahead include both connections one is born with, and those one acquires during a lifetime. Most of one's

kin ties are a matter of the family into which one was born, but an individual can increase the number of his or her kinsmen by reproduction, adding sons, daughters, and grandchildren to one's kin network. Affinal, economic, friendship and fictive kin ties must usually be built up during one's life. Besides the numbers of one's social ties, the quality of these ties may also be important. Birth into an influential family may carry more weight than birth into a numerically superior kin network. And marrying an influential spouse may count for more than marrying into a large family. This section explores the effects of these different kinds of personal connections, beginning first with genealogical ties, and continuing with affinal, economic, and friendship ties. A few additional ways to obtain personal connections that are peculiar to the Mekranoti situation will also be discussed.

### Genealogical Ties

When people in the United States cynically complain that getting ahead is "all a matter of who you know," they are often thinking of ties that one acquires at the workplace or school. It is perhaps less often that one considers the role of family ties. In simpler societies, however, anthropologists generally stress kin ties above all else. Most anthropologists agree that being born into a large or dominant kin

group has a great effect on one's leadership chances. Some argue that, in the societies they studied, individuals exert influence only over their own kinsmen (Basso 1973:107; Wagley 1977). Among the Shavante and the Cheyenne, the chief is even called "father" (Maybury-Lewis 1974:190; Hoebel 1960:37). But it is not always clear just how rigidly people adhere to their kin ties, how close people must be to be considered kin, or how important these ties are relative to other kinds of personal connections.

In societies like the Kayapó where people do not remember genealogies very far back, kin ties tend to be rather limited. The Mekranoti do not remember ancestors beyond their grandparents, and cannot usually remember the siblings of these. Consequently, only fairly close genealogical relations can be calculated. But this does not stop the Mekranoti from naming others as relatives when this proves convenient. The Mekranoti distinguish between two kinds of kin-- true kin (öbikwa djwÿj), and "false" kin (öbikwa kaäk). By true kin they usually mean those who are demonstrably related through blood (although very close affinal relatives are also considered true kin). By "false" kin they mean those who have become kinsmen because they act as such. In the Mekranoti village almost everyone is one kind of kin or the other to almost everyone else. When I asked one man to tell me his relationships to others in the village, he gave a kin

term to everyone (285 individuals) except for one boy, stolen from the Kreen Akrore Indians, whom he referred to simply as "kubə" (foreigner). He could actually trace genealogical ties, however, to only 56 out of 139 adults. Perhaps even more importantly, he recognized only 26 of these 56 genealogically related individuals as "true" relatives. Most of the others were too distant to be considered valid kinsmen. (The most distant of the "true" relatives was a mother's mother's brother's daughter.) There is also room for manipulation in the Mekranoti kinship system. This same informant dropped many close relatives from the category of "true" kin because, as he put it, "they do not act as relatives; they are stupid." On the other hand, he also included as "true" kin twelve adults with whom he had no genealogical ties. They were included for reasons such as "their mother held me as a baby." Apparently, the Mekranoti kinship system allows for some degree of manipulation.

Finally, kin ties may also sometimes become subordinate to other personal connections. The extent to which the Mekranoti can use other kinds of ties to build up political factions is well illustrated in the history of their village splits. As one informant described the split in which Angme'ê and Kenti separated from the main village, it was to his men's society that a man committed his loyalties. And the

fight over rebuilding the men's house resulted in a split in which individuals chose to remain with their age mates. Thus, kinship is not the only way to build factions.

Given the limited number of kinsmen, the ability to add or drop kin ties based on personal relations, and the possibility of building up factions with other kinds of ties, we are left with the question of just how important actual genealogical kin really are in determining leadership. We might also ask some more exact questions about the kinds of kin that have an effect on leadership. How close must a kinsman be to be important? And are male and female relatives equally important in building up political alliances?

To answer these questions, I used genealogies to determine the number of people in the kindred of every adult Mekranoti. I also made some distinctions regarding the closeness of relatives, and distinguished between male and female kin. The number of a Mekranoti's adult relatives could then be compared with his or her reputation for influence (described in chapter 4). The resulting correlations between numbers of kin and influence are shown in tables 5.1 and 5.2.

Table 5.1 gives the correlations between the number of adult relatives men have, and their influence ratings. The first column shows correlations between

TABLE 5.1

NUMBER OF ADULT KIN AND MEN'S INFLUENCE  
(N=63)

		Men's Influence	Men's Influence (Controlling for Brothers and Sons)
Total Number of Kin	Male	.24*	.09
	Female	.19+	.05
Close Kin (four genealogical links or fewer from ego)	Male	.17	-- <sup>a</sup>
	Female	-.01	-- <sup>a</sup>
Cousins and Siblings	Male	.23*	-.01
	Female	-.13	-- <sup>a</sup>
Parallel Cousins and Siblings	Male	.37***	.03
	Females	-.02	-- <sup>a</sup>
Siblings (Full and Half)	Brothers	.44***	-- <sup>b</sup>
	Sisters	.18+	-.16
Siblings' and own Children	Male	.35**	.17+
	Female	.17+	.06
Children	Sons	.41***	-- <sup>b</sup>
	Daughters	.32**	.19+

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

<sup>a</sup>No control since original correlation was not significant as predicted by hypothesis.

<sup>b</sup>These are the controlled variables. Thus no control can be made.

TABLE 5.2

NUMBER OF ADULT KIN AND WOMEN'S INFLUENCE  
(N=73)

		Women's Influence	Women's Influence (Controlling for Sons)
Total Number of Kin	Male	-.06	-- <sup>a</sup>
	Female	-.09	-- <sup>a</sup>
Close Kin (four genealogical links or fewer from ego)	Male	.02	-- <sup>a</sup>
	Female	-.04	-- <sup>a</sup>
Cousins and Siblings	Male	-.01	-- <sup>a</sup>
	Female	-.20*	-- <sup>a</sup>
Parallel Cousins and Siblings	Male	.03	-- <sup>a</sup>
	Female	-.14	-- <sup>a</sup>
Siblings (full and half)	Brothers	.11	-- <sup>a</sup>
	Sisters	-.17	-- <sup>a</sup>
Siblings' and own Children	Male	.39***	.12
	Female	.31**	.13
Children	Sons	.42***	-- <sup>b</sup>
	Daughters	.22**	-.04

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

<sup>a</sup>No control since original correlation was not significant as predicted by hypothesis

<sup>b</sup>This is the control variable. Thus no control can be made.

relatives of various degrees of closeness and men's influence. While the total number of a man's relatives correlates with his influence rating, it is the closest relatives--especially brothers, sons and daughters--that best predict leadership. In addition, male relatives consistently predict influence better than female relatives. In fact, when controlling for sons and brothers (second column), all of the other correlations disappear entirely, or are greatly reduced. This underlines the importance of close male relatives to a man's influence.

The situation for women is quite comparable (table 5.2). Again, close relatives (sons and daughters) are more important than distant ones (who may actually detract from influence if the negative correlations are to be credited), and male relatives are more important than female relatives. Indeed, when controlling for sons, the few correlations that appeared between women's influence and other kin relations all disappear. For women, then, the number of sons seems to be the most important predictor of leadership.

#### Descendance from the Chief

Besides the effects of sheer numbers of kin, the quality of one's family may also have an effect on leadership potential. The Mekranoti are not a ranked society in the traditional sense of the term (cf. Fried 1967). . There is no hard and fast rule that

requires leadership to pass from father to son, and there are no clear-cut status differences between families. Nevertheless, informants do argue that some people became chiefs because their father or some close relative was a chief. It is possible, then, that membership in a "good" family may aid in leadership acquisition.

To get some idea of the effects of family quality on leadership, I compared the influence ratings of members of the chief's kindred (i.e. all of his genealogical kin) with the influence ratings of other Mekranoti. I also compared the influence of the chief's descendants with the influence of others. Table 5.3 shows that membership in the chief's family does correlate with leadership for males, but that the effect is negligible in the case of women. In addition, the table reveals higher correlations with close kin (descendants) than with more distant kin. Indeed, control analysis (third row) shows that it is really the chief's direct descendants who get a leadership advantage. This is consistent with the findings of the previous section that only close kin really count.

The tendency for leadership to run in a prestigious family raises some interesting questions for anthropology. Are we dealing with incipient ranking? Why do people give more prestige to members of one particular family?

And what are the cross-cultural implications? These questions will be dealt with at length in chapter 8. For the moment I want simply to point out the effects of having a prestigious father on one's leadership chances.

TABLE=5.3

MEMBERSHIP IN THE CHIEF'S KINDRED AND INFLUENCE  
(MEN N=63, WOMEN N=73)

	Men's Influence	Women's Influence
Membership in the chief's Kindred	.27*	-.09
Descendance from the Chief	.46***	.16+
Membership in the chief's Kindred (controlling descendance from the chief)	-.07	-- <sup>a</sup>

<sup>a</sup>No control since original correlation was not significant as predicted by hypothesis

### Orphans

One other aspect of genealogical ties may also be important in leadership acquisition. This concerns the fate of orphans--people who lost either one or both parents before reaching adulthood. The Mekranoti describe the life of an orphan as rather sad. In several of the T.A.T. stories orphans were described as running around dirty with no one to give them fine paint jobs. They were often denied food given to other children. One orphan girl in the

Mekranoti village met this description fairly well. I never saw her painted, and usually she was dirty. Her caretakers forced her to spend much of her time caring for other smaller children while other girls her age went out to play. According to Horace Banner, a missionary in a related Kayapó village, the fate of orphans may be even crueler. He describes one incident in which a child was buried alive when the mother died because there was no one to take care of it (Banner 1961). Not all orphans, however, receive such harsh or neglected care. Several captured Kreen Akrore children seemed to enjoy most of the privileges of normal Kayapó children. Nevertheless, given the tendency to accord differential treatment to orphans, we might question whether this would have an effect on leadership chances once an orphan grew to adulthood.

To test for this possibility, I coded Mekranoti adults on their parental backgrounds (based on informants' codings). Table 5.4 shows the correlations between men's and women's leadership scores and parental backgrounds. For men, the loss of one or two parents during childhood has no relationship to later leadership, but for women, growing up with both parents until adulthood significantly, although not strongly, predicts leadership. Perhaps

women depend more on their parents than do men, who, after a certain age, move their residence to the Mekranoti men's house.

TABLE 5.4  
PARENTAL BACKGROUND AND LEADERSHIP  
(MEN N=63, WOMEN N=73)

	Men's Influence	Women's Influence
Both Parents Died while Still a Child	.06	-.12
Father Died while Still a Child	-.04	-.10
Mother Died while Still a Child	-.07	-.15
Both Parents Lived until Child Became Adult	.06	.24*

Overall, then, the loss of one's parents does not seem to be a great detriment to a person's leadership potential. Apparently, the advantage an ordinary real parent can give to his or her children is not much greater than that given by adopted parents. Although the previous sections showed that having a prestigious father (namely the chief) can be an advantage, ordinary parents are not much help in giving influence to their children.

#### Affinal Ties

The anthropological literature is filled with arguments about the importance of marriage for building up political and other alliances. In some arguments

male affines are deemed important in order to increase one's military or political allies (cf. Lévi-Strauss 1949). But other arguments stress the role of female affines in supplying the subsistence labor needed to build up economic dependents (cf. Hart and Pilling 1960). One often gets the impression from this literature that in simpler societies marriage is merely a Machiavellian ploy to get ahead, socially or economically. Yet there are few, if any, studies that show an undisputed correlation between the number or quality of one's affines and one's social or economic position.

The Mekranoti do not seem to place a great deal of emphasis on affinal relationships. A man living with his wife's parents and sisters sometimes gives these affines part of the game when he returns from a hunt--but only if there is enough to go around. His wife and children eat first, getting the best parts of the animal. Outside of the in-laws who live in his house, a man seems to have little to do with his wife's relatives. Women deal even less with their husbands' relatives. On one occasion I saw a woman give her child to her husband's sister to care for, but this was a rare event. Women usually do not leave their children with others, and on the rare occasions when they do, it is usually the woman's husband or her mother who watches over them. Interactions with affines, then, seem rather limited.

Not only do the Mekranoti have only limited contacts with their affines, but there are very few people who are even considered to be affines. The man described earlier, who gave me the terms he uses to refer to people in the village, named only seven adults as his "true" affines. These included two of his wife's brothers, his mistress's brother, his wife's "fictive" mother, two of his sister's sons' wives, and his half-brother's ex-wife's brother. This man also named four people as "fictive" affines for reasons that are not entirely clear. Some of the "true" affines seem to be only distantly related, while affines who were actually much more closely related, like his wife's niece were considered genealogical kin. Blood relatives apparently loom larger in Mekranoti minds than do affines.

Although they do not appear to be of overwhelming importance in Kayapó society, affines may still aid in attaining prestige. A comparison of the number of affines to influence reputations can give a better idea of the size of their effect on leadership. Table 5.5 shows the correlations between various kinds of affines (males, females, distant, intermediate, and close) on the one hand, and influence ratings on the other. (The definitions of the affinal variables are shown with the table.) The correlations are surprisingly high, especially for men. But as the

TABLE 5.5

AFFINAL TIES AND INFLUENCE  
(MEN N=63 AND WOMEN N=73)

		Men's Influence	Women's Influence
Distant Affines (includes all of one's spouse's kin plus the nuclear family of siblings' spouses)	Male	.27*	.22*
	Female	.38***	.22*
Intermediate Affines (includes the nuclear families of sib- lings' spouses plus one's own spouse's nuclear family)	Male	.41***	.12
	Female	.49***	.07
Close Affines (includes one's spouse's nuclear family plus the spouse's of siblings)	Male	.27*	.21*
	Female	.55***	.11

\*p < .05, \*\*p < .01, \*\*\*p < .001

following sections will illustrate, some of these correlations may be spurious. Other factors can account for part of the relationship between affines and influence.

An alternate way to gain influence through marriage is by marrying someone who is already a leader. The Kayapó often told me that certain women were called chiefs because their husbands were chiefs. And although I never heard the opposite said about men, Lux Vidal (1977:145) did report for the related Xikrin-Kayapó that one informant explained a man's rise to chiefly status by saying: "he has a good wife." The Mekranoti data do indeed show a strong correlation between one's own influence and one's spouse's influence (table 5.6). Couples seem to share leadership reputations, but it is unclear at this point just who derives influence from whom.

TABLE 5.6

SPOUSE'S INFLUENCE AND INFLUENCE  
OF MARRIED MEN (N =50)AND WOMEN (N=51)

	Men's Influence	Women's Influence
Spouse's Influence	.72***	.72***

The high correlation between a person's influence and his or her spouse's influence suggests one possible reason for the original correlations between leadership and number of affines. One possible

causal sequence might be: large number of blood ties → higher influence → higher influence for one's spouse. Since a man's blood relatives make up the bulk of his wife's affines, it is possible that the original correlations between affines and influence are simply by-products of the greater influence affines give to one's spouse.

To test for this possibility, I controlled out the effects of "spouse's influence" (table 5.7). When this was done, the original correlations between affines and women's influence disappeared entirely, or actually reversed. But for men, the original correlations did not decrease at all--in fact they went up. One possible interpretation suggested by this data is that women gain influence through their husbands, while men gain influence directly from building up ties with their wife's families.

Another possible reason for a "spurious" correlation between a man's influence and affinal ties should also be examined. A man gains affines not only through his wife, but also through his siblings and through his offspring, who upon marriage add their spouses to his pool of affinal relatives. As we have already seen, men gain influence through their brothers and sons, so it is possible that the original correlations between men's influence and affinal ties are really due only to the fact that brothers and sons give both affines and influence. That is, affines may have no

TABLE 5.7

AFFINAL TIES AND INFLUENCE  
(CONTROLLING FOR SPOUSE'S INFLUENCE RATING)

		Men's Influence	Women's Influence
Distant Affines	Male	.39*	-.01
	Female	.53***	-.01
Intermediate Affines	Male	.43*	-- <sup>a</sup>
	Female	.54***	-- <sup>a</sup>
Close Affines	Male	.26*	-.30
	Female	.63***	-- <sup>a</sup>

<sup>a</sup>No control since the original correlation was not significantly related to influence as hypothesized.

\* $p < .05$ , \*\*\* $p < .001$

independent effect. To test for this, I controlled out the effects of brothers and sons. The resulting partial correlations were much lower than the original ones, but they did not entirely disappear (table 5.8). For men, then, affines, especially female affines, do seem to have some independent relationship to leadership.

This finding raises questions about the original relationship between genealogical kin and influence. Is it possible that brothers and sons enhance a man's influence primarily because they can bring in affines upon marriage? It may seem odd that affines would be more important than close genealogical kin, but the possibility should be considered.

Table 5.9 shows what happens to the correlations between a man's influence and the number of his brothers and sons while controlling for the number of affines of various kinds. In general, control analyses have little effect on the original correlations. But the relationship between the number of a man's brothers and his influence reputation disappears almost entirely when controlling for close female affines. Thus, the number of one's female affines is a better predictor of a man's influence than is the number of his brothers.

Why would female affines be more important than brothers in leadership? I have no adequate explanation at the moment, but the matrilineal residence pattern

TABLE 5.8

AFFINAL TIES AND MEN'S INFLUENCE  
(CONTROLLING SONS AND BROTHERS)

		Men's Influence	
Distant Affines	Male	.18+	
	Female	.25*	
Intermediate Affines	Male	.08	
	Female	.11	
Close Affines	Male	.11	
	Female	.21*	

+p < .10, \*p < .05

TABLE 5.9

MALE INFLUENCE AND BROTHERS AND SONS  
 CONTROLLING FOR VARIOUS AFFINES  
 (males only)

	Influence by brothers	Influence by sons
Original correlation:	.44***	.41***
Controlling for:		
close male affines	.39***	.39***
intermediate male affines	.29*	.35**
distant male affines	.38***	.43***
close female affines	.10	.35**
intermediate female affines	.18+	.33**
distant female affines	.34**	.43***

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

of the Mekranoti may have something to do with the relationship between female affines and influence. Although male leaders do not live in larger households than other Mekranoti males, the ties a man has to his affines (both brothers' wives and wife's close family) may be especially important in a matrilocal situation. Only further exploration of the issue could resolve the question.

### Marital Status

Before leaving the topic of affines, we could not possibly neglect the effects that marriage, in and of itself, has on influence. Many writers see marriage as almost inevitable in simpler societies. Among the Mekranoti, however, there are a number of women (called mē kupry) who never marry. (They do, however, have children who are supported by the woman's family and by her lovers.) In addition, there are also a number of widows and widowers who have failed to remarry. Is marital status related to influence? Table 5.10 shows that marriage is somewhat important for males, but that it has little relationship to women's influence.

TABLE 5.10

MARITAL STATUS AND INFLUENCE  
(MEN N=63, and WOMEN N=73)

	Men's Influence	Women's Influence
Marital Status	.32**	.12

The reader might wonder at this point whether the simple fact of marriage can account for the correlation between men's influence and affinal ties. Control analyses (table 5.11) show that it cannot. Affines predict influence quite independently of a man's marital status.

In many respects, these findings about affines are hardly revolutionary discoveries. They are consistent with what many anthropologists have been saying for years about simpler societies--If a man wants to get ahead, he should find himself a wife (or wives in some societies) and build up affinal ties; if a woman wants to get ahead, she should try to marry a prestigious man. Yet this argument does not receive unqualified support from this data. After controlling for the effects of other variables the relationship between a man's influence and the number of his affines is not very strong. In addition, much of the literature stresses the importance of male affines, yet, if anything, the Mekranoti data indicate that females are more important. Finally, there is no evidence from any of this data that the Mekranoti are actually thinking about "getting ahead" when they plan their marriages. Any effects of marriage on later influence may be purely incidental.

One final question might be raised about these findings. If it is true that there are different roads to success for men and women, then what does this

TABLE 5.11

MEN'S INFLUENCE AND AFFINAL TIES  
(CONTROLLING FOR MARITAL STATUS)

Men's Influence		
Distant	Male	.16
Affines	Female	.28*
Intermediate	Male	.37**
Affines	Female	.45***
Close	Male	.21*
Affines	Female	.50***

\*p < .05, \*\*p < .01, \*\*\*p < .001

say about sexism among the Mekranoti? If there is inequality between the sexes, then who is the loser? Is it worse to depend on your husband's influence for prestige, or to depend on the number of affines you acquire with marriage? Some of the questions about sex differences in leadership acquisition will be dealt with in chapter 7, but at this point we can already see that leadership for males is not quite the same as that for females.

### Economic Ties

Besides setting up kin ties, an individual may also form alliances through other means. In many societies anthropologists have seen the road to prestige as involving the giving of goods or services to people. Becoming the center of a redistribution network, many argue, is a sure way to make oneself respected by those who receive the goods. After all, most people are not inclined to bite the hand that feeds them.

Perhaps the most dramatic form of redistribution occurs in feast giving. The use of feasts to gain prestige has been most closely examined for Melanesian societies (see especially Oliver 1955), but records of the Northwest coast societies also reveal a close relationship between giving feasts and establishing chiefly authority (Drucker 1963:133-136). Much less has been said about the phenomenon in South American Indian societies (but see Basso 1973).

The Mekranoti do not sponsor feasts for visiting villages like the Melanesian and Northwest coast societies, but they do sponsor elaborate ceremonies within the village. Sponsoring a ceremony requires a great deal of work. For months before the main event sponsors must provide food for those who participate in the singing which takes place in the center of the village every evening and every morning. Male sponsors spend a great deal of time out hunting, and their wives spend a comparable amount of time grating manioc. Although they often sneak behind their houses at night to nibble on some game, meat is supposed to be taboo for the ceremonial sponsors at this time, and they probably consume less of it than usual. During the several weeks spent trekking for tortoises immediately before the ceremonial finale, the sponsors are also responsible for the building and maintenance of large communal ovens, and for the daily redistributions of food to the trekkers. To be sure, they receive some help from others but it is my impression that the sponsors do a great deal more work than anyone else. Given all of these hardships, it is not surprising to learn that one of my informants composed a T.A.T. story in which individuals who were asked to sponsor a ceremony became angry and protested about the workload others were trying to impose on them.

At several points in my fieldwork I attempted to gather the names of recent festivals and their sponsors. Unfortunately, the data are too contradictory to allow for a systematic coding of recent feasts. Especially in the case of multiple sponsorship for a ceremony, I could not get consistent answers about who was a sponsor (mē kra rēr mex) and who merely "a helper" (mē kuka tyk). Also, since several ceremonies were often held each year, individuals sometimes neglected to mention one ceremony or another. I cannot, therefore, test directly for a relationship between ceremonial sponsorship and leadership. Although there are many names of influential people in the list that I got, prestigious elders are notoriously missing. This is because ceremonies are sponsored to bestow names on fairly young children, which elders do not have. If one wants to use ceremonies to gain prestige, then, it seems he or she must begin while still middle-aged. The absence of elders' names also indicates that, in contrast to the Melanesian and Northwest coast societies, continued feast giving throughout one's life is not a prerequisite to maintaining leadership among the Mekranoti.

Feast giving is not the only way to demonstrate one's generosity or create economic dependents. Many goods pass from individual to individual on a much smaller scale, and it may be that this kind of

economic exchange can also serve to enhance one's prestige. Since chiefs are poorer than others in the village (see chapter 2) the possibility that they are giving things away to gain prestige should be explored. One good test of this hypothesis would be a comparison of the number of economic dependents individuals have to their influence ratings. I could have asked each Mekranoti adult, for example, to give me the names of two people he or she would ask if in need of some valuable item--such as a shotgun. Receiving a large number of votes on such a question would indicate fairly clearly that one was an economic provider. Unfortunately, I did not think of this question while in the field. But I can use a more indirect measure of one's role in economic prestations--reputation for generosity. Presumably, one must give in order to be considered generous. But there may be some noise in this coding. People may be thought stingy when they give many things away simply because they have more to give than others. In a society like the Mekranoti, where there are no real noticeable differences of wealth, and where chiefs are actually poorer than everyone else, this is probably less of a problem than it might be elsewhere. Another problem is the possibility that influential people may be considered generous simply because people are unwilling to say anything bad about them. I will deal with some of these

questions later. At the moment I simply point out that reputation for generosity does correlate with both men's and women's leadership scores (table 5.12).

TABLE 5.12

REPUTATION FOR GENEROSITY AND INFLUENCE  
(MEN N=63, and WOMEN N=73)

	Men's Influence	Women's Influence
Generosity	.58***	.52***

One more economic argument has been given to explain influence. Directed primarily at accounting for male-female differences in leadership, this argument sees contribution to subsistence as of primary importance in power-wielding (see Friedl 1978; and Sanday 1974 for discussions of this view). Is it possible that those who contribute more food among the Mekranoti are more influential?

Although I have no direct measure of actual contributions to subsistence, I do have a good indicator of how much work people put into getting food. From the time allocation studies I coded adults according to the amount of time they spend at food-getting tasks. Women do most of the gardening, spending on the average about one hour and 53 minutes a day in their gardens, while men average only 28 minutes (most of which is clearing and planting). Men do more of the hunting and fishing, averaging two hours and 13 minutes a

day, while women average only a miniscule four minutes a day. Gathering is unimportant for both sexes.

To see the effects of contributing to subsistence on influence, I can compare the time men and women spend working at different tasks to their influence ratings. Table 5.13 shows a slight tendency for women who garden more to be more influential. But overall, the table does not support the subsistence argument.

TABLE 5.13

WORK INPUTS AT DIFFERENT TASKS AND INFLUENCE  
(MEN N=63, and WOMEN N=73)

	Men's Influence	Women's Influence
Gardening	.01	.16+
All Work	.03	.05
Gathering, Hunting and Fishing	-.06	-.13

Arguments about the economic basis for leadership have been central to many of the most important theories about leadership evolution and cross-cultural variation (Fried 1967; Sahlins 1958; Sahlins and Service 1960). Some of these arguments will be explored more thoroughly in chapters 7 and 8. For the moment we can note that the Mekranoti data presented so far are partially consistent with the general anthropological observation that leadership depends to some extent on economic prestations.

Friendship

One of the ways people can build up ties with others is through simple friendship. In a village as large as the Mekranoti it is not surprising to learn that people have friends with whom they like to share many of their activities. It is quite common among the Mekranoti to find groups of people who spend their time together. Often, late at night, I would receive visits in my hut from one or more of these groups. Individuals came and left as a group, and the composition of the groups seemed to be very much the same from one visit to the next.

To get some idea of the nature of these friendship cliques, I asked every Mekranoti adult to name two people with whom he or she liked to sit and talk at night, and to name two people with whom he or she liked to work (either hunting or gardening). I later tried to draw these friendship links in the form of a sociometric diagram. My first attempt at drawing links between men's conversational friends resulted in a spaghetti-like mess of lines going from one end of the paper to the other. When redrawing the diagram in order to eliminate the cross-over lines, I discovered, to my surprise, that the resulting picture corresponded very closely with the seating arrangement in the men's house (see appendix 4 for this diagram). On further reflection, I realized I should not

have been surprised at all, for at the birth of their first child, men choose the men's society they would like to join based on the friendships they have established in the varying societies. In all, 90 percent of the conversational friendship nominations made by the Mekranoti men were restricted to the members of one's own men's society or bachelors' age grade. This tendency to name people in one's own society was repeated in the nominations for friends with whom one likes to work. Seventy-three percent of all work friendships were restricted to the members of one's own men's society or bachelors' age grade. For women the borders of cliques were much less clear. There was a slight tendency for women to name as conversational friends those who lived nearby, but this was not a very strong relationship. As to work friends, women named members of their own household a third of the time (which is a lot considering the fact that there were 24 Mekranoti households to choose from).

Considering the strength of friendships among the Mekranoti we might well question whether these kinds of ties might also be related to leadership acquisition. A comparison of the number of the votes individuals received as friends, and their influence reputations shows fairly high correlations for both men and women (table 5.14). Leaders, then, do tend to have more friends than do other people.

TABLE 5.14

FRIENDSHIP TIES AND INFLUENCE  
(MEN N=63, and WOMEN N=73)

	Men's Influence	Women's Influence
Conversational Friends	.45***	.40***
Work Friends	.38***	.30**

Membership in Men's and Women's Societies

There are a few other ways to set up personal connections in Mekranoti society which may be peculiar to the Kayapó. One of these is membership in a men's society. Since one men's society is considerably larger than the other in the Mekranoti village, it is possible that choice of men's society has a great deal to do with leadership. The same could also be true for women's membership in the comparable women's societies. When comparing society membership with leadership scores, however, no such relationship obtains (table 5.15). It seems that one has an equal chance of becoming a leader regardless of the society to which one belongs.

TABLE 5.15

MEN'S AND WOMEN'S SOCIETIES AND INFLUENCE  
(MEN N=56, and WOMEN N=51)

	Men's Influence	Women's Influence
Society Membership (1=the more numerous society 0=the smaller society)	.11	-.13

Ceremonial Friends

Another kind of social tie peculiar to the Kayapó is ceremonial friendship. As described in chapter 2, ceremonial friends are inherited patrilineally (i.e., one inherits one's father's ceremonial friends), but they may be dropped or added as the occasion demands. Many people--for example the informant who gave me the terms he uses to call people in the village--do not have any ceremonial friends at all. Do ceremonial friends help in gaining influence? Table 5.16 shows no clear relationship between numbers of ceremonial friends and leadership. It seems they have little effect.

TABLE 5.16

CEREMONIAL FRIENDS AND INFLUENCE  
(MEN N=63 and WOMEN N=73)

	Men's Influence	Women's Influence
Ceremonial Friends	-.17+	.15

+p < .05

### Location in the Village

In studies from the United States, researchers have found close correlations between one's location in the center of communication networks and leadership (Stogdill 1974). Most of this research has been limited to laboratory studies, but a few studies have been carried out in field situations. Festinger (1950) found that people living in the center of a housing project generally received more votes on friendship than did those living further out on the fringes. Since friendship correlates well with leadership in our society (Stogdill 1974:222) it is likely that sheer geographical location affects one's leadership potential in the United States.

In lowland South America anthropologists have made similar comments about spatial arrangements of villages and public influence. A number of writers comment on the egalitarian nature of circular village structures (Vidal 1977; Gross 1979; but see Lévi-Strauss 1958). Since everyone is equally distant from the public center, as the argument goes, all have equal access to information about public events, and an equal chance to make themselves visible. But the building of a second concentric circle around the first somewhat modifies this egalitarian layout.

Among the Mekranoti 10 out of 24 houses are located outside the main circle. Is it possible that

those living closer to the center are more influential than others? A comparison of leadership scores with one's location in or outside of the center circle shows no relationship for either men or women (table 5.17). Perhaps geographical location is important only in situations where people do not know each other very well. In villages like the Mekranoti where everyone is very familiar with everyone else, this kind of superficial leadership criterion may be unimportant.

TABLE 5.17

LOCATION IN VILLAGE CIRCLE AND INFLUENCE  
(MEN N=63 and WOMEN N=73)

	Men's Influence	Women's Influence
Location in Village Circle	.12	.03

### Child Care

There is one more situational variable which may affect leadership. Especially in the case of women, a number of authors (Chodorow 1974; Murphy and Murphy 1974; Webster 1975; Draper 1975) argue that the need to care for children detracts from public influence. The Mekranoti women who have young children almost never leave them. A missionary once told me that an informant reeled in horror when told that the Virgin Mary laid her new-born infant in a cow's feeding box to sleep. Aside from the question of

exposing a child to the danger of such "fierce" animals, this informant simply could not understand why a mother would ever leave her baby unattended. It was abundantly clear to him that Mary was a dreadful mother.

To see if there is any relationship between child care and influence, I compared the time Mekranoti spend taking care of children (from time allocation studies) with their influence ratings (table 5.18). Results showed that women who spend more time taking care of children have less influence than other women, but this same relationship did not obtain with men. (Possibly, men spend so little time taking care of children that this has little effect on their influence.) Authors have suggested a number of different reasons why child care might detract from influence. Some of their arguments will be dealt with in chapter 7.

TABLE 5.18

CHILD CARE AND INFLUENCE  
(MEN N=63 and WOMEN N=73)

	Men's Influence	Women's Influence
Time Spent on Child Care	.14	-.34**

#### Summary of Personal Connections

To summarize the data on personal connections, male leaders generally have more sons, more affines

and more friends than other Mekranoti males. They also are more likely to be descendants of the main chief and to have wives who also rate high on influence. Finally, they are more likely to be named as generous, perhaps indicating a role as economic provider. Female Mekranoti leaders grew up with both parents, and have more sons and more friends than other women. They also have husbands who rate high on leadership, and are generally considered more generous than other women. Finally, female leaders spend less time taking care of children than do other Mekranoti women.

While these correlations give a general picture of the kinds of ties Mekranoti leaders have, they do not necessarily indicate causal relationships. Many of the ties may have come about after already acquiring leadership status. It may be, for example, that leaders have more friends simply because people like to be around high status individuals. It is also possible that leaders rate higher on generosity simply because people like to think of their leaders as good at everything. That these correlations do not "prove" causal relationships in and of themselves, however, does not mean that we cannot use them to evaluate alternate causal models for leadership acquisition. Later chapters will illustrate how control analyses can possibly be of service in separating

cause from effect. For the moment we at least have a general picture of the social ties Mekranoti leaders enjoy.

#### PERSONAL CHARACTERISTICS

Although building up personal connections may be of help in gaining influence, it is doubtful that anyone could get very far without those personal qualities that make one suitable for a leadership position. Usually anthropologists stress the importance of mental traits like intelligence, ambition, dominance, or aggressiveness (cf. Lévi-Strauss 1944; Read 1959; Chagnon 1968; Carneiro 1970), but physical characteristics also enter the picture--characteristics like age, sex and height. I will examine each of these variables one at a time.

##### Age

In his definition of an egalitarian society as one in which "there are as many positions of prestige... as there are persons capable of filling them," Fried (1967:33) felt obligated to add the qualification "within any given age-sex grade." Most anthropologists have noted that in unstratified societies elders seem to enjoy greater prestige than others. Sometimes the sheer fact of surviving to an advanced age is seen as a reason for according greater respect (Harner 1973:110-111). At other times, however, age seems to result in lowered prestige due to a weakened physical

condition and lower productivity (Holmberg 1969:224; Oliver 1955:209). Among the Mekranoti elders do seem to enjoy greater respect than others. The current village chief is the oldest man in the community. Other elders also receive respect as they administer their nightly harangues.

To get a better look at the effect of age on leadership I compared ages of Mekranoti men and women with their influence ratings. Table 5.19 shows that the two variables are indeed related. Just why this relationship should obtain for the Mekranoti while it apparently does not work elsewhere will be explored more thoroughly in chapter 6.

TABLE 5.19

AGE AND INFLUENCE  
(MEN N=63 and WOMEN N=73)

	Men's Influence	Women's Influence
Age	.37***	.48***

### Sex

In addition to the qualification on age, Fried's definition of egalitarian society also required a qualification on sex. The different statuses of men and women in egalitarian societies have been the topic of a great deal of debate in the recent anthropological literature (see especially Leacock 1978; Begler 1978; Schlegel 1977; Reiter 1975; and Rosaldo and Lamphere 1974). Many have noted the difficulty

in comparing men's influence with women's in societies where the leadership domains of the two sexes are so distinct. I encountered similar problems with the Mekranoti.

In order to compare the influence of men with that of women, I originally devised my peer studies so that informants could name either sex to the question asked. I had hoped people would mix men's names in with women's when asked questions such as: "whose advice do you (Indians) follow?" It became immediately clear, however, that informants would not mix the sexes. Rather they had a strong tendency to continue giving me names of people of the same sex until specifically asked to give names of the opposite sex. As a result I had to insist that informants name both 10 men and 10 women. Because of this difficulty I cannot directly compare men's and women's leadership scores.

Indirect evidence, however, seems to suggest that at least some men do gain higher prestige than women. First, almost everyone's initial reaction to these questions was to name men before giving women's names. In addition, some people insisted outright that Indians do not follow the advice of women. One woman gave only one woman's name and refused to give any more, saying that the advice of other women was followed only because of their husbands. Finally, it seems that

informants have a clearer idea of who the male leaders are. More of the men were called "chief," and the cross-sample reliability coefficients were higher for men's leadership than for women's (chapter 3) suggesting a greater consensus of opinion in the case of males.

Just why these differences in men's and women's leadership exist is the topic of chapter 7, and I reserve further discussion for that chapter.

### Height

One of the characteristics often associated with leaders in American society is height (Stogdill 1974: 40,47). Finding similar correlations between height and influence in a South American Indian group, Gregor (1977,1979) reviewed the information on height preferences for a number of different societies. He points out that "many cultures have a definite preference for tall men" (Gregor 1970:18), and mentions that in no case did he find a clear preference for short men. He suggests that one of the principle reasons for this bias is the commanding presence of those who are simply more visible.

Among the Mekranoti, height also seems to be important. During one conversation with me, the village chief, in extolling the virtues of his sons, made a major point about their tallness. He also confidentially denied paternity for the youngest daughter

of his current wife on the grounds that the daughter was much too short to be one of his descendants. He disparagingly compared her to a taller daughter who died during a measles epidemic. Many times during my fieldwork I also heard jokes about the puny size of certain new-born babies. The Mekranoti seem to share the attitude Gregor describes for the majority of the world's societies.

How much is this prejudice reflected in leadership attainment? A look at table 5.20 shows that height is related to influence for both men and women, but that the relationship is strongest for men. An interesting question for further research concerns the possible reasons for why height is so important. I will briefly look at two explanations in chapter 7.

TABLE 5.20

HEIGHT AND INFLUENCE  
(MEN N=60 and WOMEN N=69)

	Men's Influence	Women's Influence
Height	.41***	.23*

Intelligence

While there has been some research on the physical characteristics of leaders, by far much more time has been devoted to investigating their mental make-up. This includes studies of cognitive ability as well as of personality. United States

studies usually show correlations between scores on intelligence tests and leadership ratings (Stogdill 1974:45), a finding which matches many of the comments anthropologists have made about the intelligence of leaders in simpler societies (e.g. Thomas 1959:183; Lévi-Strauss 1944). Yet no one has actually attempted to test for intellectual ability among "egalitarian" leaders. Part of the reason may be the great difficulty of inventing a valid measure of intelligence.

Encountering seemingly insurmountable problems in their attempts to develop "culture-free" intelligence tests, many researchers have given up altogether on the whole concept of intelligence and have turned instead to questions about more specific cognitive abilities or styles (cf. Cole, et al. 1971; Witkin 1967). Much of the current research in culture and cognition is devoted to questioning the universality of schemes for cognitive development (Dasen 1972), or to the search for abstract cognitive universals (cf. Osgood 1964; Cole et al. 1971). More recently, greater attention has been given to explaining variation in thought and perception (see especially Berry 1976; and Ember 1977).

One area where research has been neglected, however, concerns the values people place on cognitive abilities. To what extent do people around the world agree or disagree on the worth of particular intellectual skills? This question raises anew the whole problem of intelligence, which, after all, is "a name for all

the various cognitive skills which are developed in and valued by the group" (Berry 1974: 225-229). Particularly with regard to leadership, we want to know not only if people are capable of performing certain intellectual tasks, but also if they think it is worthwhile to perform them. In short, we need to come up with an intelligence test which will be meaningful in the society under investigation.

Although rare, a few researchers have attempted to devise tests that measure native concepts of intelligence. Klein et al. (1973) used local reputations for intelligence as a check for the validity of their own more "etic" measures. Wober (1974: 261-280) used a semantic differential test to establish the meaning of the native terms which he glossed as "intelligence," and "cleverness." I used similar procedures among the Mekranoti.

Before arriving in the Mekranoti village I expected to encounter difficulties in finding native equivalents to our concept of intelligence. My fears were unfounded. A Kayapó expression "no t̃yx" seems to express very much our own ideas. People who are no t̃yx understand things quickly; they can speak well; and they can manufacture things others have not learned how to make. Indians often commented that Westerners must be no t̃yx because they can make so many fine artifacts, and because they seem to be able to learn

Kayapó easier than Indians learn Portuguese. When I asked people how they could tell if someone is "no tyx" or not, several informants mentioned that stupid people require repeated demonstrations in order to pick up weaving techniques, while "intelligent" people understand right away. It seemed that this weaving demonstration served the Indians as a kind of native "intelligence test." It also resembled a test recommended to me before leaving for the field.

While still working on my reserrch proposal I asked a number of people for ideas about how to measure intelligence. Lynn Streeter (personal communication) suggested I use a pointer test. This test begins with the experimenter's pointing in sequence to a number of checkers laid out on a board. The informant is asked to point to the checkers in the same sequence as the experimenter used. Beginning with a small number, the experimenter adds one more checker each time the informant successfully points to the objects in the proper order. Given two tries for each pointing sequence, an individual obtains a final score based on the highest number of checkers he or she successfully pointed to.

Noting the similarity of this pointer test to the Kayapó weaving demonstration--they both require a good visual, short-term memory for the hand movements of another person--I adopted the pointer test (using dominoes instead of checkers). Although I had never explained why I was asking people to do this test, men

soon began to send each other to my house saying: "Go. Let Bepproti (my name) find out how smart (no tix) you are." Sometimes they would administer the test to each other in the men's house just for fun.

To get an idea of the validity of this test for measuring native concepts of intelligence, I compared test scores of men and women with their peer reputations for intelligence (table 5.21). For men the correlation between the short-term memory test scores and the intelligence reputations was fairly high. For the women the correlation was much lower. It may be that the weaving demonstration (and consequently the pointer test) is a more valid measure for men than for women simply because it is the men among the Mekranoti who actually do the weaving.

TABLE 5.21

POINTING TEST SCORES AND REPUTATIONS FOR INTELLIGENCE  
(MEN N=60 and WOMEN N=69)

	Men's Intelligence Reputation	Women's Intelligence Reputation
Score on Pointing Test	.42***	.17+

Undoubtedly, there are also other problems in these codings. Very likely the pointing test does not tap many of the abilities the Mekranoti associate with intelligence, and the intelligence reputations may be partly influenced by overall prestige. Yet the

relationship between these two alternate measures does serve to provide some mutual validation.

Now that there are indications that the intelligence measures have some validity, it is possible to compare these codings to influence ratings. Table 5.22 shows that for both men and women leadership correlates with intelligence reputations, and to a lesser extent with pointing test scores. The argument that leaders are more intelligent than followers is supported among the Mekranoti.

TABLE 5.22  
INTELLIGENCE AND INFLUENCE  
(MEN AND WOMEN)

	Men's Influence	Women's Influence
Intelligence Reputation	.63***	.67***
Pointing Test Score	.21+	.20+

### Originality

Besides intelligence, other mental traits may also be important in acquiring prestige. One of these is imagination. Sometimes we get the impression from reports on egalitarian societies that conformity is valued above originality. If it is true that such "traditional" peoples devalue originality, then this is quite at odds with the United States situation. Stogdill (1974:48,79) reports that the correlations between originality and leadership in the United States

are higher than for any other leadership trait except popularity. It is possible, though, that certain factors peculiar to the United States may account for the high value placed on originality--factors like rapid change which encourages the development of new ideas.

The Mekranoti are not devoid of originality. The ability to take advantage of Western goods in rather unorthodox ways attest to the imagination of at least some Mekranoti. I was particularly impressed by the use men made of broken umbrella ribs to fashion an excellent carving tool. Originality in speech-making is also highly valued. At night in the men's house speakers who can fill their narratives with exquisite details of events and places people have never heard before can engage the attention of everyone present, but those who go on and on with the same stories are often rudely ignored. The Mekranoti, then, do seem to value originality.

To get some idea of the extent to which originality affects influence, I used the T.A.T. stories Indians told me as a sample of their verbal behavior. Many people gave standardized answers to these stories, but others demonstrated a great deal of imagination. To code these stories for originality an assistant and I independently coded them first for the different "details" they contained. We then added up the number of times the same "detail" appeared in the stories

of different people. In my codings, for example, seventy-five people mentioned shooting fish, but only one person mentioned running behind a tree to confuse an attacking jaguar. Details mentioned by more than 25 persons were considered "conformist" while those mentioned by fewer than 25 were "original." An individual's final originality score consisted simply of the total number of "original" details he or she mentioned (corrected for story length).

A comparison of these codings for originality with influence reputations shows little correlation between the two variables (table 5.23). There was only a very slight (and non-significant) correlation of originality with men's influence and none at all for women. Perhaps the low reliability of the originality measure (chapter 3) is partly to blame here. But the possibility that originality is not a highly valued trait should also be considered.

TABLE 5.23

ORIGINALITY AND INFLUENCE  
(MEN N=60 and WOMEN N=69)

	Men's Influence	Women's Influence
Originality	.15	-.05

Social Insight

In his classic article on leadership Read (1959: 435) stresses the importance of insight into group needs, and "a fine feeling for the opinions of others"

as one of the most important characteristics of egalitarian leaders. If social insight is important, it is a characteristic that egalitarian leaders may not share with leaders from the United States. In ending a review chapter on the subject Stogdill (1974:106) concluded that "the hypothesis that leaders are better able than followers to diagnose social situations is not well supported by research." But where leadership is based on consent rather than on authority, social insight may be a requisite for leadership.

As in other societies of this type, Mekranoti leaders sometimes seem to serve more as representatives of public consensus than as order-giving authorities. Often when I wanted to know about future events in the village--such as when people were leaving for a long trek--I would ask individuals to tell me who would decide the event. Everyone passed the decision-making buck. Those who were sponsoring the trek would attribute the decision to their spouses or to the main chief. The chief would argue that it was up to the sponsors to decide. I could never really distinguish the moment when a decision was actually made. But the night before a trek actually took place the chief was there to announce in his nightly harangue that people would be leaving the next day. Consensus seemed to have jelled in the men's house discussions just before the

announcement was made, and it is impossible in these situations to attribute the final decision to any one person. This does not, of course, preclude the possibility that leaders had more to say than others in shaping the general consensus. By offering suggestions one can do more than merely represent public opinion, and yet still do less than give outright orders. But if rule by consensus really is important, then it seems reasonable to expect leaders to have a good sense of just what that consensus is.

The clearest and easiest way to measure a person's knowledge of others' opinions is to compare his or her estimate of what people think of a situation with the way they actually think (cf. Stogdill 1974). In asking some of the peer questions I was, in effect, asking people to make judgments about others' opinions. The question: "Whose advice do you (Indians, as a whole) follow to do Indian things?"--is in effect asking people to size up a social situation. How good are leaders at predicting the social status of others? This is very much the same way of dealing with social insight that psychologists have used in United States studies (Stogdill 1974: 101-105).

Since only 30 individuals (a random sample) were asked to judge the influence of their peers, I could code only these 30 people for social insight. Their scores consisted of the average of the leadership

scores for the people named as leaders. Thus, for example, if a man named 10 men and 10 women whose average leadership score was 12, he rated higher on social insight than someone else who named people whose average score was only 7. Presumably, the first person had a better idea of the general public opinion about influence than did the second. Did the leaders among these thirty people name more influential people than others did?

Table 5.24 shows no significant correlations for either men or women between social insight and leadership. Leaders were no better than others at judging who the influential people in the village were. This hold true even when judgments about male leaders and about female leaders are separated in the analysis (Note: since some people did not give women's names in the question about influence, they could not be coded for judgments about women leaders.) It is possible that the sample was simply too small to yield reliable results, but it is also possible that leaders, in fact, are no better than anyone else at judging public opinion. Social insight may not be an important characteristic of leaders.

That Mekranoti leaders do not excel at social insight suggests that their role does not require them to simply give voice to public sentiment. Given their higher ratings on intelligence, and expertise (chapter 4),

it seems more likely that, instead of merely representing the public opinion, they play an active role in shaping it.

TABLE 2.4  
SOCIAL INSIGHT AND INFLUENCE  
(MEN AND WOMEN)

	Men's Influence	Women's Influence
Named More Leaders	.07 (N=12)	.16 (N=12)
Named More Male Leaders	-.09 (N=16)	.14 (N=14)
Named More Female Leaders	.17 (N=12)	.03 (N=12)

### Aggression

Recently when asked by a non-anthropologist relative of mine about the topic of my dissertation, I told him I was trying to figure out what kinds of people become leaders in "primitive" societies. Before I had a chance to explain myself a bit further he immediately piped in that it must be "big men" who can "beat up" everyone else. It seems that a popular view of primitive people is still one of brutish savagery.

But laymen are not the only ones to see aggression as important to leadership. Fried (1967:183) points out that "it has been held quite frequently and by some of the major thinkers in sociology that political status originated in either religious or military roles, and of

these the latter are often adjudged the more significant since they appear to convey intrinsic physical power that can be used to sanction the behavior of others." Carneiro (1970:736) in his argument about the rise of the state suggests that "it was the individuals who had distinguished themselves in war who were generally appointed to political office and assigned the task of carrying out this administration." Could aggressiveness, or skill as a warrior be behind leadership?

Among the Mekranoti warfare has always been a major part of life. The high proportion of deaths that can be attributed to warfare is enough in itself to verify its importance. Although their last battle took place in 1967, the Mekranoti are still concerned about war, and often suffer fears of a retaliatory raid by the Kreen Akrore Indians. Much of the discussion in the men's house at night consists of tales of past war adventures. Much of the information that gets transmitted during these discussions is of a didactic nature--the importance of good quality weapons, and how to make them; good times to attack; and how to make a proper retreat. The men who lead in these discussions are those who have most experience with battles. As seen in chapter 4, men with reputations as warriors do, indeed, rate higher on influence. The question we need to ask at this point is whether there is a personality element in all of this.

The Kayapó have a word, ákrê, that means roughly "fierce." Nettles, poisonous snakes, jaguars, the Kreen Akrore and some, but not all, angry Kayapó are ákrê. Once while transcribing T.A.T. stories I came across a word that I did not understand and asked my Indian helper what it meant. He explained that it meant something like being "upset." Good Mekranoti men, he went on, become ákrê when they are angry; lesser Mekranoti become "upset." At least for the men it seems fierceness is a virtue.

To code people on aggressiveness I used two measures. First, I asked in the peer ratings: who is fierce? Votes received on that question provided one indicator of aggressiveness. Another indicator came from the T.A.T. stories, where, operating under the assumption that personality is reflected in what people talk about, I used mentions of fights, both physical and verbal, to code aggressiveness. Table 5.25 shows that warriors are generally considered to be fierce, and are more likely than others to have mentioned fights in their T.A.T. stories. In addition, there is also a tendency for men who received votes as "fierce" to have mentioned fights in their stories. There is no correlation, however, between a woman's reputation for fierceness and her mentions of fights. Perhaps social sanctions against women's aggression are responsible for the discrepancy (see chapter 3). Perhaps, also, the meaning

of àkrè is less clear for women, who do not actually engage in warfare. Chapter 3 showed that the reliability of the T.A.T. aggression scores was very low for women. The weakness of the T.A.T. measure for women may be another reason for the failure of the two measures of aggression to correspond. But for the men, at least, the alternate measures for aggressiveness seem to result in similar codings, to some extent validating the measures.

TABLE 5.25

ALTERNATE MEASURES OF AGGRESSIVENESS  
(MEN AND WOMEN)

	Aggression in T.A.T.'s	Reputation as "Fierce"
Men's Reputation as a Warrior	.37**	.68***
Men's Mentions of Aggression in T.A.T.		.28*
Women's Mentions of Aggression in T.A.T.		-.09

\*p<.05, \*\* p<.01, \*\*\*p<.001

Are leaders more aggressive than followers?

Table 5.26 shows that for men, aggressiveness, especially as measured through the peer ratings, does correlate with leadership, but that for women there is some contradiction between the different ratings.

TABLE 5.26

AGGRESSIVENESS AND INFLUENCE  
(MEN AND WOMEN)

	Men's Influence	Women's Influence
Reputation as "Fierce"	.48***	.39***
Mentions of Aggression in T.A.T.'s	.19+	-.12

+p<.10, \*\*\*p<.001

Realistic Humility

Seemingly opposed to aggressiveness as a personality trait is passivity. But at least one author (Guttman 1974) argues that "passive mastery" may be a quality that can enhance leadership. People who see themselves as always being in control of the world may not be as objective in analyzing social situations as those who better understand that they are not omnipotent. When one recognizes the possibility of failure or of one's own weakness in front of certain situations, he or she may be less prone to make foolish judgments and may ultimately make a more responsible leader. Perhaps a better term than "passive mastery" to describe this personality trait would be "realistic humility." It is the realistic assessment of one's own limitations that is most important for leadership.

The Mekranoti recognize the problems of an inflated sense of power. While it may be a virtue to become "fierce" at times, a failure to recognize when one

has overstepped his bounds is not considered good at all. One of the most infamous characters in the Mekranoti past is Kenti, the leader who went too far, threw his power around too much and killed too many people. In the end he was forced to flee with only his wife to accompany him to seek refuge in a distant Mundurucú village. If not passivity per se, then at least a recognition of one's own limits is a respected trait.

When telling stories on the T.A.T.'s, the Mekranoti had an overwhelming tendency to give optimistic answers. Men almost always killed the game they set out for. They manufactured artifacts that turned out well. And everyone ate well and lived happily ever after. But a few people did mention failures--the game got away, the hero had to run away from an enemy, there was not enough cooked food to feed both of the children in the picture. To what extent was it the leaders who gave these more "realistic" responses?

Comparing leadership scores with mentions of these more "realistic" details in the T.A.T. stories (table 5.27) shows some tendency for leaders to mention more passive "details," but correlations are weak, and only marginally significant.

TABLE 5.27

REALISTIC HUMILITY AND INFLUENCE  
(MEN N=60 and WOMEN N=69)

	Men's Influence	Women's Influence
Realistic Humility	.21+	.18+

+  $p < .10$

Ambition

In his classic explanation of egalitarian leadership Lévi-Strauss (1944) argues: "there are chiefs because there are, in any human group, men who, unlike most of their companions, enjoy prestige for its own sake..." Before one can become a leader, one must first want the job.

It is difficult to tell among the Mekranoti just who is most interested in becoming a leader. A number of people seem to be "on their way" to leadership positions, but I never heard anyone actually say he or she wanted to become chief. On trek aspiring haranguers can try their hand at Kayapó oratory in what amounts to a test run, but there is no comparable "test run" for leadership, per se. In the T.A.T. stories one informant did mention that there were sometimes wrestling matches among the younger men to "see who would make a good chief," but wrestling is a rare event among the Kayapó. I saw it take place only once during my year-long stay among the Mekranoti.

And, in any case, it is clearly not the only road to prestige. Still, people do seem to have a good idea of who wants the position. When I asked a random sample of Kayapó to give me the names of people who "want to make themselves chiefs," they had no trouble in responding. Votes received on this question can serve as an indicator of ambition. The main village chief was not named in these questions-- probably because he has reached as high a position as anyone can attain. But many prestigious younger men were named.

Table 5.28 shows the relationship between ambition and influence ratings. The data indicate that for both men and women, ambition is related to leadership acquisition.

TABLE 5.28

AMBITION AND LEADERSHIP  
(MEN N=63 and WOMEN N=73)

	Men's Influence	Women's Influence
Ambition	.54***	.63***

\*\*\*p < .001

Competitiveness

In the United States competitiveness is generally considered a positive trait. "Competition against a standard of excellence"--one definition of need-for-achievement (LeVine 1966)--has been greatly praised as

necessary for economic development, and special programs have been created to instill this characteristic in leaders (McClelland 1961). But "competition against a standard of excellence" may not be a universally valued trait. Often it consists in competition against one's fellows, to which many people may object. Fromm and Maccoby (1970), for example, have documented the resentment and general social unrest that resulted from the use of competitive, entrepreneurial management techniques in a Mexican village. Graves and Graves (1978) found a similar disdain for competitive behavior in the Cook Islands. They used experimental data to show how competitiveness is increasing with modernization. They contrast traditional non-competitive leaders with the competitive leaders who have been influenced by modern society.

Among the Mekranoti, there is not much clear-cut competition. Wrestling matches do allow individuals to show off, but there is no score-keeping, and no one is declared a winner. A foot-race during the Tâkâk ceremony is similarly organized. And other sports--like an indigenous form of hockey, and the imported soccer games--also lack score-keeping. It seems people are more interested in "how you play the game." But lack of score-keeping does not necessarily mean that people do not use these and other events to compare individuals on their abilities, as the example of

wrestling "to see who would make a good chief" clearly illustrates. Even if there are no direct wins, competition may still play an important role in Mekranoti life.

To see if competitive desires are related to leadership, I took advantage of the T.A.T. stories. Some of the stories composed by the Mekranoti included competitive events--mostly food races, but also shooting matches. Did individuals who mentioned competitive "details" score higher than others on leadership? Table 5.29 shows that the reverse, if anything, is true. More competitive men are slightly less likely to become leaders. Perhaps direct competition is detrimental in situations like that of the Mekranoti where everyone already knows everyone else very well. The "sorting" function of competition may be unnecessary, while dwelling on the superior strengths of those who succeed may inhibit easy cooperation.

TABLE 5.29

COMPETITIVENESS AND INFLUENCE  
(MEN N=60 and WOMEN N=69)

	Men's Influence	Women's Influence
Competitiveness	-.20+	.05

+p < .10

### Expertise

Before leaving the topic of personal characteristics, we should also mention the expertise that characterizes Mekranoti leaders. Chapter 4 showed that, in general, people who are recognized as good in one area are also recognized as good in other areas. Achieved skills or knowledge may also be useful in raising one's leadership chances.

### Summary of Personal Characteristics

We found that male leaders are generally more clearly delineated than female. Compared to other Mekranoti males, leaders are older, taller, more intelligent, more ambitious, more aggressive, and more "realistic." Female leaders are also older, taller, more intelligent and more ambitious than other Mekranoti women. For both sexes achieving expertise in different areas is another factor related to leadership.

Most of the leadership characteristics outlined here are not surprising. Perhaps the most astonishing finding is that Mekranoti leaders fulfill so well the descriptions of leaders found elsewhere. Indeed, they share many of the same characteristics of leaders in the United States, who are also more intelligent, more ambitious, and more aggressive than others (Stogdill 1974). A few differences, however, might be noted. In our society age correlates only with certain kinds of leadership. In the corporate world age gives

a considerable advantage, but in more "creative" fields--e.g. the arts and sciences --special prestige is often bestowed on younger people (Stogdill 1974:76). Height is also not a consistent predictor of leadership in the United States (Stogdill 1974:74). Not much has been done on "realistic humility" as defined here (Guttman's "passive mastery"), but future research might yield interesting results.

Some of the negative findings may also be of interest. That competitiveness does not predict leadership among the Mekranoti may be related to the intimate knowledge individuals have of each others' talents, making direct competition unnecessary to gaining prestige. The failure of social insight to correlate with leadership matches many findings from the United States, and suggests that simply representing the public's opinions on issues is not enough for leadership. People seem to expect more than just "representation" from their leaders. Anthropologists would do well to reconsider the "representative" role of leadership in simpler societies.

#### CONCLUSION

Perhaps the most striking conclusion to be drawn from all of this data is that leadership involves not just one, but a number of variables. The data here suggest that both personal connections (sons, affines, friends, economic partners, and influential spouses and

parents) and personal characteristics (age, sex, height, intelligence, ambition, aggressiveness, "realistic humility" and expertise) are important aspects of leadership acquisition. All of these variables have been seen as critical by one author or another for the attainment of leadership status.

At this point in analysis many social researchers would be inclined to put all of the variables that predict leadership into one big multiple regression equation. Such an analysis would give us the best predictors of leadership, but it would lose a great deal in the process. Although giving us a description of what leaders are like, simple correlations cannot assure us of causality. Only more careful analysis of the data can separate out alternate causal sequences. Simple, straightforward multiple regression lacks the subtlety necessary for the job.

One of the problems presented by the data so far is the possibility that some leadership predictors may be spuriously related to influence, or may be effects rather than causes of leadership. For example, leaders may gain friends simply because people like to think of their leaders as good at everything; and they may acquire "realistic humility" after already obtaining their positions.

With other predictors, however, there is less question about cause and effect. It is highly

unlikely, for example, that being a leader would "cause" one to be older, or to be a descendant of the chief, or to be male. If there are causal connections here, age, family background and sex must precede leadership acquisition. As we will see in later chapters, it is sometimes possible to take advantage of these more clear-cut causal orderings to distinguish between cause and effect in other variables.

One other problem is also left unresolved when using wholesale multivariate procedures like multiple regression. Some variables, which in fact are causally related to the criterion variable, may be left out of the final equation simply because they are less direct causes. Age, for example, may in fact help one acquire influence, but it may do so through intervening mechanisms. Acquiring a large number of personal connections, becoming more "realistic," or simply learning more as one grows older may be the more immediate causes of leadership. But we would still want to see age as a cause of increasing influence even if there are intervening variables.

Instead of using a more wholesale multivariate analysis, I prefer to work out specific causal sequences. It is in the unravelling of these sequences that the most interesting relationships among variables may be seen. I will not be able to deal with all of the possible intricate causal relationships among the

variables outlined here, but the succeeding chapters will deal with a number of possible sequences-- especially as they relate to age, sex and family membership. Additional analyses will have to await a future date.

## CHAPTER 6

## WHY ARE OLDER PEOPLE INFLUENTIAL?

The anthropological literature is filled with references to societies where aged men and women wield a great deal of influence. In his cross-cultural study of aging Simmons (1945:79) concludes that "some degree of prestige for the aged seems to have been practically universal in all known societies." The gerontocratic tendencies in China probably come first to mind, but other societies are even more impressive in the respect and influence they give to the elders. Simmons (1945:118) argues that "probably in no place on earth have aged men exercised greater authority than in Australia." Among certain Australian Aborigines a Great Council composed of old men made the major decisions about where to hunt, when to hold ceremonies, and whom to marry (Simmons 1945). Among the Samburu-Masai of Kenya a similar council of elders met to make decisions about dispute settlements, initiations, and other important matters (Spencer 1967).

In native South America the bestowal of prestige and influence on elders is also common, although perhaps less dramatic than in Australia or among the Masai. Among the Jivaro qualification for chiefly office is said to require that one be "elderly and experienced" and even the name for chief means

"old one" (Karsten 1935:8,20). Gusinde says that the influence of Yahgan elders amounts to "positive control" (Gusinde 1937: 635). Reichel-Dolmatoff (1951:258) reports that growing old is a pleasant experience for the Kogi whose status increases with age. Similar respect for the elderly is shown by the Nambicuara (Roquette-Pinto 1938:46) and by the Mundurucú (Murphy 1960:105). Finally, the Timbira give special privileges to men and women in the older age grades (Nimuendajú 1946).

But while respect for the elderly is very common, it is not universal. Murphy and Quain (1955:90) report for the Trumai that advancing years were a stigma, and according to Quain, Trumai Indians always denied any implications that they were older than someone else. The Sirionó considered the elderly to be "excess baggage" (Holmberg 1969:256). The Carajá and the Carib sometimes killed them (Gow-Smith 1925:224; Rouse 1948:558).

Within this array of varying attitudes toward the elderly, the Mekranoti fall clearly on the side of the gerontophiles. First of all, there seems to be some virtue in simply surviving to an old age. People sometimes told me that acting badly--e.g. getting angry too easily--takes away one's appetite and can result in weakening and an early death. Several times when giving me the names

of people who were "nice," informants named Ire-nhȳrti, and added, as if it should have been obvious to me, "don't you see how old she is?" That she should live so long (she is the oldest person in the village) was apparently indication enough that she was nice. In direct contrast to the Trumai who argue that they are younger than others may have thought, the Mekranoti argue in the opposite direction, insisting that they are older. Great emphasis is also placed on treating one's elderly parents well. As the Mekranoti put it, since parents give freely to their children when they are young, the children are obligated to reciprocate at a later age. Elders are also respected for their knowledge. Often when questioned about their society, the Mekranoti would direct me to the elders, insisting that only older people could really answer. In addition, the influence of elders in decision-making should not be neglected. Besides delivering nightly harangues in which important village matters are discussed, elders also play a special role in dispute settlement. Once when a fight threatened between two young men over a case of adultery, it was three elders who resolved the situation by giving speeches in the central plaza about how undignified it was for two relatives to fight.

Finally, as I have mentioned before, the village chief is the oldest man among the Mekranoti. With all of this, it is no wonder that chapter 5 showed a significant correlation between age and influence for both men ( $r=.37$ ) and women ( $r=.48$ ).

Why are elders accorded such great prestige in some societies? What is it about growing older that accounts for the increase in influence with age? With the exception of Simmons (to be discussed later) few have really tackled this question with generalizable explanations in mind. A number of anthropologists, however, have offered explanations for gerontocracy in the particular societies they studied. Usually only one explanation is examined in each case. This has unfortunate consequences, for, with such a limited outlook, we have no way of checking to see if other arguments could serve equally as well, or even better, in explaining the influence of elders in the society in question. A preferable procedure is to look at alternate possibilities to see which explanations work best.

In dealing with gerontocracy among the Mekranoti I prefer to examine many different explanations in order to give a fairer picture of the influence of elders. My basic strategy will be to look at each explanation in turn, checking to see how well it accounts for the correlation between age and influence. Put graphically, I will be looking for the variable

that best replaces the question mark in the causal sequence: age → ? → influence. I will first look only at simple correlations, but will then turn to path analysis to sort out the alternate causal schemes. As with other arguments about leadership, authors have stressed the roles both of personal connections and personal characteristics.

#### EXPLANATIONS FOR GERONTOCRACY

##### The Personal Connections Acquired with Age

The arguments about gerontocracy that take up the most space in the anthropological literature are those concerning the personal connections acquired with age. Authors generally assume that one's social ties accumulate as one grows older. Some ties--such as sons or daughters--are clearly cumulative, but others may not be. One may acquire additional economic dependents, sources of income, or friends with age, but one may also lose them.

Sons. Perhaps the most sure-fire way to gain connections while growing older is through one's own reproduction. As an informant once told Frederik Barth (1961:44) "a man's influence depends not on what he has here (pointing to the head) but on what he has here (pointing to the genitalia)"--suggesting that the way to gain power is to have children who, as adults, lend their support to their parents. Chapter 5 showed that among the Mekranoti, those with

adult sons and grandsons are more likely than others to be leaders. It might seem obvious that older people would have more adult descendants than would others. Significant correlations between age and the number of one's adult sons and grandsons bear this out. Curiously, this relationship is even stronger in the case of women ( $r=.62$ ,  $p < .001$ ) than in the case of men ( $r=.46$ ,  $p < .001$ ). In general, Mekranoti men have fewer adult sons than do Mekranoti women. Eight men have one adult son, one has two sons, and Bebgogoti (the chief) has five adult sons and one grandson. On the other hand, thirteen Mekranoti women have adult sons. Six have only one son or grandson, while three have two, three have three, and one has four. This is probably because many men are already dead by the time their sons and grandsons reach adulthood. A late age of marriage for males (often between 25 and 30 years of age) coupled with a high mortality rate from warfare means that few live long enough to see their grandsons (and sons) become adults. Women, however, become pregnant and get married at a fairly young age (15 or so), and are much more likely to survive to see their children grow up.

Affines. Another explanation for the greater influence of elders emphasizes the role of affines. Hart and Pilling (1960) argue that Tiwi influence

results from the acquisition of wives and affines through exchanges of daughters. Like many other anthropologists (Rose, 1968; Spencer 1965), they see polygyny as particularly important, not only in providing for more children and affines, but also in giving the economic support needed to build economic dependents. The Mekranoti are not polygynous, and so their gerontocratic tendencies cannot be attributed to this marriage pattern. But, as we have seen in chapter 5, the number of one's affines is related to leadership--at least for men. Can the build-up of affines account for the greater prestige and influence of elder men? It seems unlikely. The affines that predicted leadership were close female affines, distant female affines, and distant male affines, but these are not related to age ( $r=.06$ ,  $r=.03$ , and  $r=-.03$ , respectively). While one can gain affines through the marriages of one's sons and daughters, one can also lose them through the deaths of siblings. It is probably for this reason that the number of one's affines does not correlate with age. It seems, then, that Mekranoti elders have not built up their influence by acquiring affines.

Economics. Another road to prestige in some societies is through the build-up of wealth. Oliver (1955), for example, points out how instrumental wealth is in gaining prestige among the Siuai. As mentioned earlier, Mekranoti leaders are, if anything,

poorer than non-leaders, so Mekranoti influence cannot be attributed to wealth per se. What may be more important is the willingness to give things away. This is probably also true among the Siuai (Oliver 1955) and may be the case among the Tiwi where more transient wealth in the form of surplus food with which to "throw large parties" (Hart and Pilling 1960) counts for more than any hoarded riches. As shown in chapter 5, Mekranoti leaders do, indeed, have a reputation for generosity.

To what extent are Mekranoti elders more generous than others? In a society where material wealth is not accumulated during one's life, people must continue to produce the goods they give away. Since elders are physically less capable of work, it might seem, at first glance, that they would have less to give than would younger people. But further reflection casts doubt on this idea. Elders may indeed be doing less work, but since they are past child-rearing days, they may not need to feed as many mouths, so what they do produce is freer for gift-giving. Furthermore, since their own children are "paying them back" for earlier generosity, they may also be collecting "outstanding debts." As a result, they may have more to give than others. In any case, they do rate significantly higher on generosity than do younger people ( $r=.30$  for men and  $r=.33$  for women).

Child care. A related question concerns the effect of child care on the influence of elders. Perhaps one of the reasons older women become more influential is because they no longer have to worry about caring for children. Grandmothers sometimes get saddled with taking care of their daughters' children, but this is relatively infrequent among the Mekranoti. While a baby is still nursing, grandmothers are unable to care for the child for long periods, and after weaning, children can fare better for themselves around the Mekranoti village. It is more likely that an older sister or the husband will care for the child at this point. Chapter 5 showed that child care burdens detract from a woman's influence. Do older women spend less time caring for children? A significant negative correlation of  $r = -.31$  ( $p < .05$ ) between a woman's age and the time she spends caring for children shows that elder women do indeed spend less time on child care.

Friends. The most informal kind of tie one can acquire is simple friendship. Chapter 5 showed that the number of one's friends predicts leadership. Could an accumulation of friendship ties account for the influence of elders? While elders may know people for longer periods of time, this does not necessarily mean that they can hold on to more friends. Friends may disappear or die. In one interview an old man

complained to me that all of his old buddies had died. The men's society to which they belonged had long since dissolved, and he was left alone. Nevertheless, there is a significant tendency for older men and women to have more friends with whom they can chat than do younger people ( $r=.36$ ,  $p<.01$  for men, and  $r=.20$ ,  $p<.05$  for women). Interestingly, though, older people are much less likely to be named as work friends than as conversational friends ( $r=.20$ ,  $p<.10$  for men's age and nominations as work friend, and  $r=.08$ , n.s. for women's age and nominations as a work friend). This is probably due to the lower work capabilities of older people. Friendship, then, like other social ties, may possibly account for the greater influence of Mekranoti elders.

To summarize the important social ties of elders, elders have more sons, more friends and, if generosity is an indicator, more economic ties than younger people. In addition, older women spend less time on child-care than do younger women.

#### The Personal Characteristics of Elders

"Realistic Humility." While most anthropologists have concentrated on arguments about the social ties that accrue to elders, some writers have attempted to deal with personal characteristics. One of the traits often ascribed to elder leaders is their moral strength. Gusinde (1937:635,940)

speaks of the "blameless character" of elder Yahgan leaders, and stresses their role as "representatives and supporters of universal justice and traditional customs." Spencer (1965) also speaks of the moral virtues of elders, whom he describes as "worthy" and "prudent." And Simmons (1945) summarizes cross-cultural evidence that underlines the importance of elders in roles as "guardians of the status quo," and as administrators of the moral sector of society.

It is difficult to measure "moral character," or even to specify what it means. Guttman (1974) probably outlines the personality features involved as well as anyone. He sees "passive mastery" as a universal aspect of human aging, and argues that in "traditional" societies, as exemplified by the highland Druze, this passivity becomes the "core and pivot of the older man's social prestige and personal identity." Guttman emphasizes the suitability of the elders' humility and submissiveness for religious roles and for upholding traditional values. As argued in chapter 5, this humility (I call it "realistic humility") may be useful outside of religion where it can help in the disinterested analysis of social situations, and in the making of fair moral judgments. Simmons particularly stresses the role of elders in dispute settlement in various societies around the world. Could "realistic humility" be

behind this tendency to give elders power as judges? Could this account for the influence elders enjoy?

Among the Mekranoti I was sometimes impressed by the soft-spoken and humble demeanor of some of the elders. Bâjkâ-re, especially, is an extremely reserved individual. Except for his harangues, I never hear him speak loudly. He usually sits silently by himself or with a few friends in quiet conversation. Other elders, however, are much more flamboyant than Bâjkâ-re. Bebgogoti (the chief) usually speaks loudly and with dramatic gestures. He is not at all modest about his abilities and accomplishments. Pakÿx, too, is a more colorful character than Bâjkâ-re. With good natured humor and a lot of "clowning around," he sometimes entertains the whole men's house. He is also rather immodest about his abilities. Several times during my fieldwork he declared himself an expert on various topics to me. Not all elders, then, are characterized by humility.

Correlational analysis does show some relationship (although only marginally significant) between age and "realistic humility" for both males ( $r=.18$ ) and females ( $r=.21$ ). This is in line with Guttman's arguments about the universality of changes in personality with age. But the correlations are less impressive than might be expected.

Special roles. Another reason for the enhanced prestige of Mekranoti elders may be the acquisition of special roles like shaman, haranguer or songleader. These roles give one a certain amount of power that may extend to other domains. Chapter 4 showed that people in these roles are also likely to be leaders in other areas of life. The role of songleader is held by only three men who are not older than the average Mekranoti adult male ( $r=.12$ , n.s.). The role of songleader, then, is unlikely to account for the greater influence of elders. But elders do take over other specialized positions. Only certain old men can act as haranguers ( $r=.55$  between haranguing and age). Young people can become shamans, but here, too, there is a significant tendency for shamans to be older ( $r=.54$  for the relationship between male shaman status and age, and  $r=.19$  for female shaman status and age). It is possible, then, that gaining influence with age may depend, to some extent, on acquiring certain specialized roles.

Knowledge and expertise. One aspect of aging--increased knowledge--might immediately occur to readers as a reason for according prestige to elders, yet few anthropologists devote much attention to it. An exception, Reichel-Dolmatoff (1951:258) writes of the Kogi that "as the years pass, his knowledge and his status increase. Children and young

people respect him and ask his advice. Society esteems him...It is necessary to be old in order to know much..." Simmons (1945:123) also speaks of the importance of "accumulation of wisdom and experience" in enhancing the prestige and security of elders. Most other anthropologists, however, consider knowledge and experience more as supplemental than as crucial factors in the acquisition of influence with age.

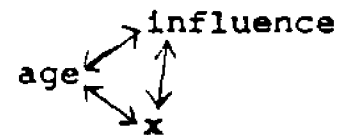
Chapter 4 discussed a number of areas of expertise that are related to leadership. To what extent do Mekranoti elders excel in these different areas? Older Mekranoti men rate higher than younger men on expertise as warriors ( $r=.59$ ,  $p<.001$ ), craftsmen ( $r=.22$ ,  $p=.05$ ) and hunters ( $r=.32$ ,  $p<.01$ ); and on knowledge of ceremonies ( $r=.59$ ,  $p<.001$ ), knowledge of ancestors ( $r=.72$ ,  $p<.001$ ), and general knowledge of Indian "things" ( $r=.67$ ,  $p<.001$ ). But they do not have an advantage over younger Mekranoti with regard to knowledge of civilized ways ( $r=-.02$ , n.s.). Older Mekranoti women are recognized for their general knowledge of Indian things ( $r=.67$ ,  $p<.001$ ), knowledge of ceremonies ( $r=.73$ ,  $p<.001$ ), and knowledge of ancestors ( $r=.84$ ,  $p<.001$ ). But they are not better than younger Mekranoti women at painting ( $r=.07$ , n.s.) or on their knowledge of civilized ways ( $r=-.12$ , n.s.). Overall, then, there are many areas of knowledge

and expertise that the Mekranoti do pick up as they grow older. These factors may be important in accounting for their leadership advantages.

#### SORTING OUT THE DIFFERENT VARIABLES

As the preceding discussions have shown, there are a number of aspects to aging that could potentially account for the increased influence of Mekranoti elders. Tables 6.1 and 6.2 summarize the correlations of the different variables with both age and influence for men and women. With many significant correlations, these tables may lead some readers to conclude that most of the factors thought responsible for the greater influence of Mekranoti elders do, in fact, act as intervening variables. But such a conclusion would be premature.

There are many possible causal models that can be proposed to account for the relationships among different variables. In this chapter we have been looking at the intercorrelations among different sets of three variables each. Each set contains the variables: age, influence, and a third factor proposed as intervening. Diagrammatically, the connections can be represented as:



where x stands for the third variable in the set.

The question that now arises is: which link in each set of three variables is the weakest, and which, the strongest?

TABLE 6.1  
 PREDICTORS OF AGE AND INFLUENCE  
 (MEN ONLY)

	Men's Age	Men's Influence
Sons	.46***	.41***
Generosity	.30**	.53***
Conversational Friends	.36**	.45***
Work Friends	.20+	.38***
"Realistic Humility"	.18+	.21+
Songleader	.12	.36***
Haranguer	.55***	.45***
Shaman	.54***	.28**
Warrior	.59***	.59***
Craftsman	.22 <sup>a</sup>	.64***
Hunter	.32**	.40***
Knowledge of Indians	.67***	.54***
Knowledge of Ceremonies	.59***	.71***
Knowledge of Ancsstors	.72***	.60***
Knowledge of Civilized Ways	-.02	.66***

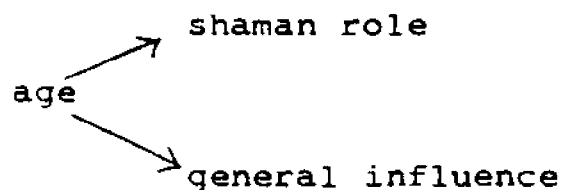
+p < .10, \*p < .05. \*\*p < .01, \*\*\*p < .001

TABLE 6.2  
 PREDICTORS OF AGE AND INFLUENCE  
 (WOMEN ONLY)

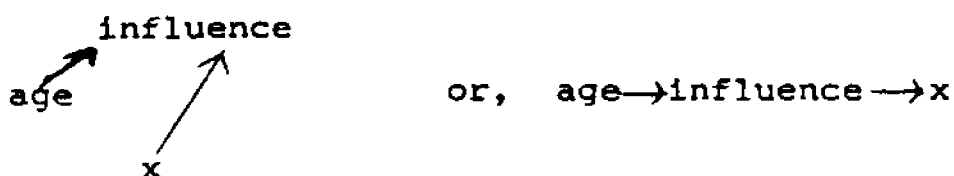
	Women's Age	Women's Influence
Sons	.62***	.42***
Generosity	.33**	.52***
Conersational Friends	.20*	.40***
Work Friends	.08	.30**
"Realistic Humility"	.21*	.18+
Shaman	.19*	.25*
Painter	.07	.47***
Knowledge of Indians	.67***	.53***
Knowledge of Ceremonies	.73***	.61***
Knowledge of Ancestors	.84***	.45***
Knowledge of Civilized Ways	-.12	.11
Child Care Burdens	-.31*	-.34**

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

For a variable to intervene between age and influence, it should correlate with both age and influence better than these two variables correlate with each other. For the men, this means the correlation coefficients should be higher than .37 ( $r=.37$  between age and influence for men), and for women, they should be higher than .48 ( $r=.48$  between age and influence for women). Otherwise it makes more sense to posit other causal orderings. For example, in the case of men, a role as shaman does not correlate as well with influence as does age itself. This suggests that age may give an advantage to becoming a shaman, independently of the advantage it gives in gaining influence. Diagrammatically:



By the same token, many variables are not so closely related to age as is influence. This suggests that the tie between age and these other variables is not very strong. It is likely that they are related to leadership, more or less independently of age. Diagrammatically, either:



Many of the variables in tables 6.1 and 6.2 act in this way. For men, generosity, conversational friends, work friends, "realistic humility," knowledge of civilized ways, a role as songleader, and expertise as a craftsman or hunter, all fail to correlate as strongly with age as age correlates with influence. Similarly, for women, generosity, conversational friends, work friends, freedom from child care burdens, a role as shaman, and expertise at painting are most likely related to leadership independently of any direct connection with age.

Only a few variables meet the more rigid criterion, for an intervening variable, of high correlations with both age and influence. For men, these are: sons, haranguer, warrior, knowledge of ceremonies, knowledge of ancestors, and general knowledge. For women, they are: knowledge of ceremonies, and general knowledge. If any variables "intervene" between age and influence, it must be these.\* The most plausible ordering for these variables is: age  $\rightarrow$  x  $\rightarrow$  influence. But another possibility is: age  $\rightarrow$  x  $\leftarrow$  influence. There is no question about the direction of the causal

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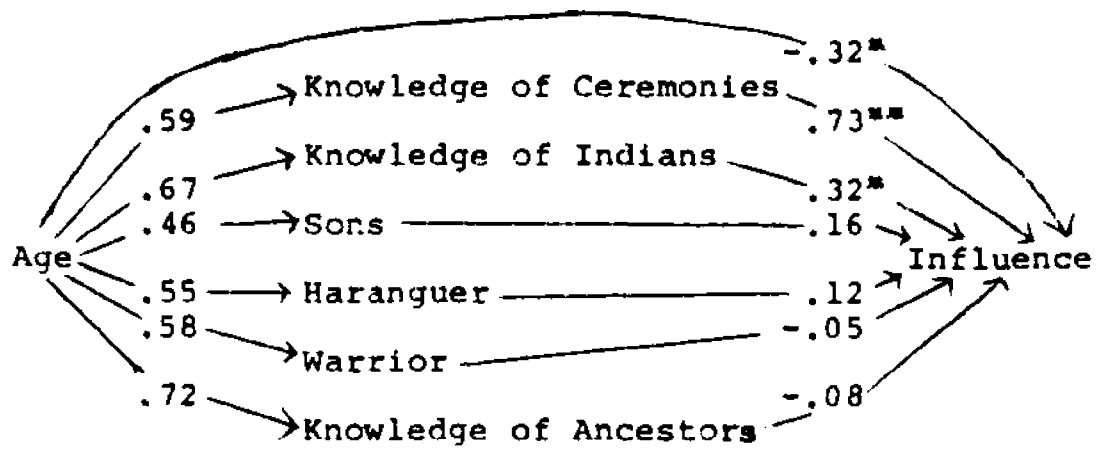
\*An analysis of partial correlations leads one to exactly the same conclusion. The same variables "intervene" in both types of analysis (see appendix 5).

arrow from age to x. The other variables could not possibly "cause" people to grow older. But the direction of the arrow from x to influence is ambiguous. It is possible that both age and influence are independent causes of the "intervening" variable. Only a study of changes over time could definitely resolve the question of causal direction. But theories can be evaluated without this additional information. The important point of this analysis is to show that some variables are consistent with the causal scheme: age  $\rightarrow$  x  $\rightarrow$  influence, while others definitely are not.

Having eliminated many possible factors as intervening variables, we are still left with the task of determining which of the remaining variables are most important in explaining the original correlation between age and influence. To evaluate the relative importance of each of the different intervening variables, a path analysis is needed. With such a technique it is possible to document the independent importance of each intervening variable in accounting for the original leadership advantage of Mekranoti elders.

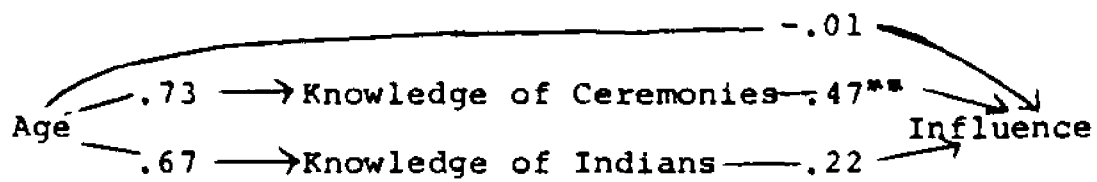
Figures 6.1 and 6.2 show path diagrams for both men and women. The path coefficients on the arrows leading into influence are the standardized beta values from a multiple regression analysis. They

FIGURE 6.1  
 PATH DIAGRAM OF MEN'S INFLUENCE  
 AND AGE



\* $p < .05$ , \*\* $p < .01$

FIGURE 6.2  
 PATH DIAGRAM OF WOMEN'S INFLUENCE  
 AND AGE



\*\* $p < .01$

show the independent relationship of each variable with influence while controlling for all of the rest. When doing this control, only three variables remain significantly related to influence: age (now negatively related to influence), knowledge of ceremonies, and knowledge of Indian ways. Knowledge of ceremonies is by far the most important variable. A change in one standard deviation ( $\sigma$ ) in an individual's score in knowledge of ceremonies would (independently of the other variables) entail a change of  $.73 \sigma$  on a man's influence score. It would change a woman's influence score by  $.47 \sigma$ . Next in importance is general knowledge of Indian things, sons, and a role as haranguer (men only). When controlling for the other variables, age, warrior status, and knowledge of the ancestors actually appear to detract from a man's influence. But the negative relationship is significant only in the case of age (beta=-.32,  $F=6.3$ ,  $p<.05$ ). Apparently, men who fail to acquire knowledge as they grow older are actually at a disadvantage in becoming leaders.

In the path diagrams, the coefficients leading from age to the different intervening variables show the extent of change in these variables when age changes by one standard deviation ( $\sigma$ ). This information can be used to calculate the importance

of the different paths in accounting for the correlation between age and influence among the Mekranoti. To illustrate, figure 6.1 shows that a change in one  $\sigma$  of a man's age changes his score on knowledge of ceremonies by .59  $\sigma$ . A change of one  $\sigma$  in knowledge of ceremonies, in turn, results in a change of .73  $\sigma$  in a man's influence score (while controlling for all the other variables). Overall, then, the indirect path through knowledge of ceremonies accounts for a change of .43  $\sigma$  (.59 X .73) in influence for every change of one  $\sigma$  in age.

Tables 6.3 and 6.4 show the direct and indirect paths from age to influence for men and women.\* The direct path is the one from age to influence that is not mediated by an intervening variable. Its coefficient is the beta value of age on influence while controlling for the other variables. The indirect paths involve an intermediate variable. As is clear in the tables, knowledge of ceremonies and of

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\*The reader might note that the sum of direct and indirect paths always equals the original correlation. This is so because the original correlation showed the change in influence (in units of  $\sigma$ ) brought about with a change of one  $\sigma$  in age, without controlling for the other variables. The multiple regression analysis distinguishes how much of the change is due to each proposed "intervening" variable. Path analysis in effect breaks down an original correlation into its component parts.

TABLE 6.3  
 BREAKDOWN OF PATHS BETWEEN  
 AGE AND INFLUENCE  
 (MEN ONLY)

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Original Correlation Between Age and Influence	.37
Direct Path:	-.32
Indirect Path via:	
Knowledge of Ceremonies	.43
Knowledge of Indians	.21
Sons	.07
Haranguer	.07
Warrior	-.03
Knowledge of Ancestors	-.06

---

TABLE 6.4  
 BREAKDOWN OF PATHS BETWEEN  
 AGE AND INFLUENCE  
 (WOMEN ONLY)

---

Original Correlation Between Age and Influence	.48
Direct Path:	-.01
Indirect Path via:	
Knowledge of Ceremonies	.34
Knowledge of Indians	.15

---

Indian things are, by far, the major factors in accounting for the greater influence of Mekranoti elders--both men and women. In fact, the path analysis suggests that, without these intervening variables, age might actually detract from influence (at least in the case of men, where the direct path coefficient is negative).

#### MEKRANOTI ELDERS AND KNOWLEDGE

It is not surprising that knowledge seems to be more important than factors like family ties in a Mekranoti elder's acquisition of influence. When requesting advice, the Mekranoti do not limit themselves to suggestions from kinsmen or other individuals with whom they have other social ties. In nightly meetings the men can address questions to people sitting at the opposite end of the men's house. There is no embarrassment about speaking too loudly. (The Mekranoti often encourage their children to speak up more clearly.) Thus, advice can easily be obtained from people who have few social connections to the speaker. I often heard questions addressed to one elder or another. One of the most popular requests for information concerned geography--the location of fruit tree groves, or of areas infested with vampire bats and malaria-bearing mosquitos. At other times people requested advice about Kayapó skills--e.g., crafts, or housebuilding--

or about the "tricks" sometimes used by non-Kayapó Indians in war raids. The knowledge of the elders is crucial in determining the outcome of certain decisions. Once while on trek, I remember how the younger men complained about constructing a path through a certain area of forest which seemed to be heavily flooded. Several elders disagreed with the younger men. The elders argued that the flooded areas were not so extensive as they seemed. The alternative directions, although seemingly less problematic, would eventually result in more difficult travelling further on. Several elders described specific incidents in the past when they had travelled through the areas in question. They demonstrated their knowledge of these areas by mentioning landmarks (certain kinds of trees, etc.) they had encountered on previous trips. Some of the younger men who had scouted in these directions confirmed the landmarks. It was the demonstrated knowledge of the elders that convinced the younger men to cut a path in a new direction.

Another area where the elders are called upon for advice is in conflict resolution. When a fight threatened between Pátkãre and Bepjakoti over who would take Nhãkti as a wife, it was several elders who negotiated the peace. Calling upon their knowledge

of the specific social ties of the two adversaries, these elders were able to convince the angry young men that they were too closely related to be fighting against each other. The elders pointed out the various kinds of ties that the young men held in common. In this case, the two men were related by fictive kin ties (that could be calculated through various ancestors), by membership in a common men's society, and by membership in a common age grade. The elders also emphasized moments in the past when these two individuals had participated together in the same activities. It is doubtful whether younger mediators could have drawn upon the same knowledge of the two individuals' history.

As suggested by the statistical data, the role of Kayapó elders in Mekranoti ceremonial life may be especially important to their exercise of influence. That elders have an important say in how ceremonies are run is unquestionable. Not only do the Mekranoti defer to the elders to describe ceremonies, but they also consult them for advice on specific details of procedure. Once while on trek, the men were forced to ask Bâjkâre to give them the words to a song they had all forgotten. (They spent considerable time afterwards rehearsing this song.) When a disagreement arose over where a certain dance should lead at the

close of an important ceremony, Bebgogoti was asked to give the final word on where to move.

Elders can also demand that their authority be obeyed when it comes to a question of ceremonial prerogatives. Once, when a disagreement arose over where to locate a new trekking campsite, Krakjêr used his authority as father of the female ceremonial sponsor to declare where the shelters should be built. He chose the site originally selected by his daughter, even though the majority of the trekkers thought the area too infested with ants to set up camp. That the elders have an important say in ceremonies is easy to understand, but this does not explain why ceremonial knowledge might be so important for the Mekranoti.

How might the importance of ceremonies to the Mekranoti be explained? Many anthropologists see ceremonies as important to the functioning of society. In one well-known work, Rappaport (1968) argues that ceremonies may serve to regulate important aspects of the environment for the simpler societies of the world. He sees ceremonial cycles as regulating the number of pigs, the distribution of people over land, and warfare among the Tsembaga-Maring of New Guinea. Among the Mekranoti ceremonies may also serve as ecological regulators. Bebgogoti once told me that the Mekranoti would soon be burning their gardens because he had seen a certain tree flower.

This signified the beginning of the wet season. Other environmental cues were also given for the coming of the dry season. I have no evidence of any ritual or ceremony built around these particular cues, but there was some indication that details of the Mekranoti environment were best remembered in ritual songs. Pykatire (the Portuguese speaker) once requested a tape I had made of the chief's "blessing" of a newly acquired shotgun. This blessing took place at night, and consisted of the singing of many traditional songs surrounding the making and use of newly acquired items (in this case, shotguns). The songs could be heard only by those in the chief's hut, and included many references to the relationships of the local flora and fauna to Mekranoti life. Pykatire was interested in the tape because it revealed a lot of information that most people did not know. Possibly, then, important information was stored in these ritual songs.

Another area where ceremonial life is linked to ecological variables is trekking. Mekranoti naming ceremonies require that villagers go out on trek to find tortoises to bring back for the ceremony (Werner 1978). These treks last several weeks and result in the consumption of considerably more game than is available in the home village (Werner 1978). It is possible that the treks provide a way of relieving

pressure on nearby game resources while the villagers exploit the game in other areas of their habitat. The decision about when to hold a ceremony and to trek may in part be based on decisions made by the elders. The elders are quick to make complaints about the lack of game in the village and to suggest ways (including trekking) to get more. Ceremonies, then, may be important in the relationships of the Mekranoti to their environment.

Besides regulating the ways the Mekranoti deal with the natural environment, ceremonies may also affect social relationships. Gross (1979) argues that the elaborate ceremonial and social life of Central Brazilian Indians may be a way of inhibiting divisive fights between different groups of people. By cross-cutting the loyalties of different individuals, ceremonial (and other social) groupings make it difficult for people to form potentially disruptive interest groups. For example, a man would be hesitant to side with his kinsman in a dispute if this meant he had to fight against someone who shared his ceremonial roles, or was a member of his age grade.

Mekranoti elders have some control over the kinds of allegiances that individuals acquire in their lives. It is an elder (unrelated to the child) who takes a boy from his maternal house to live in the men's house. This "graduation" of a boy from bokti to 'okre status involves a ritual carried out by the

elder(s) in question. Advancement to other age grades also depends on the decision of one or more elders. Older men, then, can exercise some control over the people who will associate with a boy as he grows up. (Elder women similarly determine when a girl is to receive the krajtyk ceremony, which advances the girl to a new age grade). Elders may also have some control over the formation of men's societies (although individuals can still choose which society to enter if men's societies are in existence). Finally, it is a boy or girl's grandparents (ngât and kwatÿj) who decide what names and ceremonial privileges will be passed along to the grandchildren. Since all Kayapó who share the same name assume that they are somehow related (cf. Bamberger 1974), these names may provide important links to Kayapó in other villages. Elders, then, have some control over these potential social relationships as well.

Besides their influence over the kinds of ties individuals acquire, elders may also take advantage of ceremonies to alleviate tensions or to channel energies within the village. An elder once told me that the reason the Mekranoti timed their trekking activities when they did was because the trekking would soften the tension that had arisen over a fight between two men. The men had been fighting over a case of adultery, and the trek, he argued, would divert peoples' attention to other problems. The two

men could also use the trek as an excuse to temporarily avoid resolving the problems. One man stayed behind in the village, while the other man accompanied the villagers to the forest. It is not clear how much the decision to trek depended on the advice of the elders, but their speeches made at the time of the fight, and in the nightly harangues combined comments about the fight with suggestions for trekking. In any case, the ceremonial trek was used to alleviate village tensions.

Ceremonies may also serve other social functions. Many Kayapó ceremonies are related to the needs of warfare. In addition to the "club dance" that precedes a raiding expedition, other ceremonies also deal with warfare. The two major naming ceremonies I witnessed in the Mekranoti village both ended with war themes. In one case, the women were attacked and "killed" to eliminate them from the dance. In the other ceremony it was an anteatery mask that was "killed" in a surprise attack. The ceremonies also may be a form of "basic training" for warfare. The dances, done in stooped-over positions, are exhausting, and people are urged to continue all night without sleeping. Failure to do so results in scolding (often from the elders)--"How do you expect to run from the Kreen Akrore if you get tired so easily? I went for three days without sleeping after raiding the Kubenkräkenh." These are typical

comments from the elders. The ceremonies, then, may have practical value, and the elders' knowledge may be respected accordingly.

In sum, there are a number of reasons why knowledge, and especially ceremonial knowledge, may be important in the exercise of influence by Mekranoti elders. Elders possess general knowledge about geography and about Kayapó skills that younger people still need. The information about ceremonies that elders pass on to younger Mekranoti may be important in a number of areas of life. First, this knowledge may be a way of regulating Mekranoti relationships to the environment. Second, ceremonial knowledge may also be useful in controlling social relationships. Elders have some say over the kinds of social ties young people can acquire, and they can use the knowledge of these ties to negotiate peace in disputes or to otherwise manipulate social relationships. Finally, ceremonies may also provide a means to train younger people in such important matters as warfare.

#### DISCUSSION

What are the implications of the finding that knowledge, rather than social ties or personality, best accounts for the greater influence of Mekranoti elders? One lesson we might learn is that the Machiavellian approach to leadership acquisition, which sees influence as a question of manipulating

social ties, does not explain how everyone achieves a leadership position. For Mekranoti elders, knowledge is more important than the social ties they establish during their lifetimes. Perhaps this is because the Mekranoti social system, through its system of cross-cutting loyalties, inhibits the development of all-purpose interest groups. This means that talented leaders do not need to worry about "playing politics" with different interest groups, and can concentrate on acquiring and demonstrating their knowledge of important areas of Mekranoti life. In societies with more rigid interest groups, social ties may be more important than among the Mekranoti.

These findings may also have implications for the cross-cultural variation in gerontocracy. Simmons (1946) argues that "especially in societies that lack written records, all that is worth knowing has to be carried in the head--a lucid mind, a good memory, and a seasoned judgment, even when housed in a feeble frame, are indispensable and treasured assets to the group." This suggests that the development of literacy in society would have a detrimental effect on the influence of elders. Unfortunately, Simmons does not present any data to support this view. There is data, however, to show that other factors do play a role in the cross-cultural variation of gerontocracy.

Simmons (1945) shows cross-cultural correlations between the employment of the aged in government, and the presence of such social features as group responsibility for crimes, recognized judicial authority and permanent residence. As Simmons argues, elders gain respect most often in those societies that provide roles where wisdom and experience can be exercised, and where waning physical powers do not hinder activity. Thus, in societies with more permanent forms of residence, the elderly are not burdened by the necessity for mobility, and are freer to exercise their wisdom. Where there are special roles for decision-making, such as judges or a governing council, elders are particularly suitable to fill the positions. Perhaps there is a curvilinear relationship between societal complexity and the employment of elders as leaders. In simpler societies the physical burdens of mobility may hinder the ability of elders to function well, while in more complex societies the ability of younger people to acquire knowledge from books may take away from the importance of the knowledge older people have. Perhaps an emphasis on new knowledge may also dampen the importance of what older people know. Obsolete knowledge would not be so highly valued as more relevant, recent information. The finding from our society that age is not as good a predictor of leadership in the more creative fields--like the arts and

sciences--suggests that an emphasis on new information does detract from the influence of older people (Stogdill 1974:76).

Another question concerns the role of ceremonial knowledge. In what other kinds of society would ceremonial knowledge be important? It is difficult to answer this question at this point. We know little about the relationship between ceremonies and influence in other societies. A few hypotheses, however, might be ventured. As argued above, the Mekranoti may stress ceremonial knowledge because of the importance of ceremonies in regulating ecological and social relationships. If this is true, then we might expect that where there are other means to evaluate these relationships, there would be less stress on ceremonies. Scientific techniques, for example, may substitute for ceremonial ones. Another possibility is that a limited number of alternative courses of action may reduce the number of ecological or social variables people can manipulate (as for example in slavery). In such a situation ceremonial knowledge might be less important in exercising influence. Some studies of ceremonies and influence in other cultures might clarify these points.

#### CONCLUSION

The Mekranoti data suggest that knowledge is of prime importance in the exercise of influence in

old age. Combined with Simmons' cross-cultural studies, this data makes a strong case for the importance of knowledge in accounting for gerontocracy. Future research might concentrate on specifying the kinds of knowledge that are important, and on isolating the cultural and ecological conditions behind knowledge acquisition.

## CHAPTER 7

## WHY DO MEN HAVE A LEADERSHIP ADVANTAGE OVER WOMEN?

Perhaps no aspect of sex roles has received greater attention by anthropologists in recent years than the role of men and women in leadership in non-Western societies. The reasons for differences in influence between men and women have been heavily debated (Rosaldo and Lamphere 1974; Reiter 1975; Schlegel 1977; Leacock 1978; Lee 1974; Draper 1975; and Murphy and Murphy 1974). But within this literature there seems to be some confusion about just what is meant by leadership differences.

## DEFINING MEN'S LEADERSHIP RELATIVE TO WOMEN'S

Part of the problem in defining men's and women's leadership seems to stem from a confusion about just what sexual equality is. It is important to make a distinction between sexual equality and sexual autonomy (see Leacock 1978 for a discussion of sexual autonomy). Sexual equality refers to the extent to which men and women share equal influence in the same areas of life. To be sexually equal, societies must first allow men and women to participate in the same spheres of influence. If men and women do not have access to the same positions, then it is impossible to argue that they have equal opportunities.

This means that the question of why there are different spheres of influence to begin with, must first be answered before one can discuss cross-cultural differences in the relative influence of men and women. Sexual autonomy, on the other hand, refers to the extent to which men and women make their own decisions about their personal activities, independently of the other sex. The primary question here is why men or women sometimes make decisions about the other sex's activities or submit to the other sex's decisions.

Although writers often blur the distinction between these two concepts, sexual equality may not at all coincide with sexual autonomy. To give some examples, Leacock (1978) depicts the Iroquois as a prime example of a society with sexual autonomy. Here, women decide women's affairs and men decide men's affairs. Lee (1974) and Draper (1975) make similar points for the !Kung Bushmen, and Murphy and Murphy (1974) do the same for the Mundurucú. Yet, at least in the cases of the Iroquois and the Mundurucú, one would be hard-pressed to argue for sexual equality. Although Iroquois women have a great deal to say about who becomes a chief, they themselves are clearly excluded from this male leadership position (Wallace 1969). Among the Mundurucú, although the

women can use indirect means to get what they want, the major decision-making that takes place in the men's house is rigidly off limits to them (Murphy and Murphy 1974:79). On the other hand, certain more sexually equal societies may not be particularly autonomous. Bacdayan (1977) and Datan (1977) make strong cases for the relative sexual equality of the Western Bontoc, Phillipines, and of the Israeli kibbutzim. Yet in neither of these societies do individuals have the autonomy characteristic of women in !Kung, Mundurucú and Iroquois societies. Instead, many personal activities--e.g., task assignments and residence moves--depend on the decisions made by elected and other officials who may well be of the other sex.

It is necessary to clarify, then, just what one is trying to explain when dealing with the relative influence of men and women. In this chapter I will not deal with explanations for the separate spheres of influence of men and women. Rather, I will devote attention primarily to arguments about the relative influence of men over women's affairs or over affairs that concern both sexes. This does not mean, of course, that Mekranoti women do not have their own separate areas of influence in which men have little say.

The separation of men's from women's influence is very clear among the Mekranoti. I could not get informants to mix men in with women when asking for the names of influential persons. While male Mekranoti chiefs are usually considered leaders of their men's societies, or sections thereof, female Mekranoti chiefs are usually considered leaders of the corresponding women's societies. These groups have independent activities. Men congregate in the men's house which is off limits to women except for very special occasions. They go off with their particular society on collective ceremonial hunts and they sometimes form cooperative work groups for building houses or for clearing and planting rice gardens. Women also have regular meetings behind the domestic houses with their women's societies to paint each other with genipap dye. The meetings are much less regular and much shorter than the nightly men's meetings, but they are distinct. Women also gather together at other times to bathe their children at the river and to process bitter manioc in the manioc shed. Finally, the women also go with their women's societies to harvest food from their society's garden at the time of a festival, and they manage their own ceremonies. Just as the women claim ignorance of what the men are doing while the latter prepare for a ceremony out in the forest,

so also do the men claim ignorance of the women's activities when a woman's dance takes place in the forest.

But while men and women have their separate spheres of influence, there are many activities which are performed by both sexes, and must be coordinated for both--such as when and where to trek, or move the village, and when to work on the community airstrip for FUNAI. Both sexes have their say in these kinds of decisions. Sometimes at night one can hear the exchange of comments about a future decision as one of the elders harangues the village and asks questions of the audience. Once, while on trek, women made it quite clear that they disagreed with the men about returning to the village. The men wanted to continue trekking; the women wanted to go home. The issue was not formally resolved, but trekking continued for several weeks afterwards. But while women do have input into the decisions, it seems men have the upper hand. It is after all, a man who does the haranguing, and it is in the men's house that many community decisions are most heavily discussed. The comments of informants about leadership also suggest that males are favored above females in making community decisions that affect both sexes. As mentioned previously, most informants named men as leaders

before considering females. Some refused even to name women. Finally, although there are more adult women in the Mekranoti village than men, men hold more of the formal leadership positions like haranguer, shaman, songleader and chief. Why do men have more say than women in community decisions affecting both sexes?

#### EXPLANATIONS FOR A MALE LEADERSHIP ADVANTAGE

When explaining why men seem to have the upper hand in politics, anthropologists generally give arguments that begin with assumed fundamental differences between the sexes--differences in aggression, strength, and reproductive processes. I will deal with these arguments in some detail in later sections of this chapter, but before doing this, some questions might be raised about the universality of these assumed sex differences. Especially with regard to aggression and strength, some could argue that these traits are not always associated with males. Unable to look at all of the societies that have ever existed on earth, we can never know for sure that something is universal. But we can check for universality among the societies for which we do have records. Of all the personality traits studied, aggression more consistently differentiates males from females than any other trait. Male/female differences in

aggression show up not only in all of the cultures for which systematic data are available (Ember 1979), but these differences also appear at very early ages (Maccoby and Jacklin 1974). Physiological differences, especially height, but also aerobic work capacities, and proportion of body weight in muscle, have also consistently distinguished men from women within different societies (Ember 1979).

Probably few would question the universality of sex differences in reproductive processes, but some might question whether certain supposed cultural universals need follow from these differences. Some might question, for example, whether a male's inability to nurse babies would necessarily require women to take over child-care. But regardless of this objection, nowhere in the world has anyone reported men doing as much or more child-care than women. While some Israeli kibbutzim have attempted to make child-care equal for men and women, this has generally proved unsuccessful (Spiro 1970; Tiger and Shepher 1975; and Datan 1977).

There is evidence, then, that these proposed sex differences in aggression, physiology (especially height), and child-care are widespread, perhaps universal, among the world's societies. While it

is easy to find some individual exceptions to these sex characterizations within any given society, men are, on the average, taller and more aggressive, and spend less time on child-care than women. This does not necessarily mean that these differences are inborn or immutable. Universal differences in socialization practices or other conditions, even if they occur early, may account for the differences between males and females. But regardless of why males and females differ, the differences do seem to be basic.

How consistent are the Mekranoti data with these general trends? In height Mekranoti men average 1.63 meters (5'4"), compared to an average for women of 1.52 meters (4'11"). The difference is highly significant ( $r=.77$ ). In time spent on child care, men average only 12 minutes a day compared to a woman's average of one hour seven minutes. Again the difference is significant ( $r=.47$ ), although less impressive than the difference in height. I cannot compare aggressiveness for men and women on the basis of reputational measures because the names of men and women were requested separately on the peer questions. But other measures can serve to compare the two sexes. As measured by the responses to the T.A.T. stories, aggression among the Mekranoti is significantly higher in men than in women ( $r=.24$ ).

These sex differences, then, are consistent with differences found in most of the world's societies.

It is not easy to tell just where these differences originate. Differences in height are clearly biological, but they too, may, at least partly, be a result of differences in socialization practices such as feeding or stress. Dietary studies among the Mekranoti, for example, showed one pubescent boy consistently eating more meat than anyone else in his family. Also the Mekranoti practice of piercing boys', but not girls', lips may provide a stimulus to growth in boys (cf. Landauer and Whiting 1964). Differences in time spent caring for children seem to be a result primarily of the ability of women to nurse their own children. It is her young children and babies that most take up a woman's time ( $r=.28$  between time spent caring for children and the year a woman's last child was born).

Aggression may be learned. There is some fairly direct pressure for aggression in Mekranoti males. But while it is a virtue for men to be "fierce" this is not so clearly the case with women. Also, some inadvertant pressure for less aggressiveness on the part of females may come from the tasks girls and women are typically assigned. Carol Ember (1973) showed that among the Luo, it was the performance of child-care tasks that best seemed to account for the

lower aggression scores of Luo boys who did feminine work. Among the Mekranoti there is a tendency for women who spend more time at child-care to be less aggressive when aggression is measured both by T.A.T. responses and by peer ratings ( $r=.24$  between aggression and child-care in both cases).

Can these differences between the sexes account for the "upper hand" men seem to enjoy in decision making? Unfortunately, I cannot directly answer this question with the Mekranoti data on leadership. Since informants were so adamant about separating men from women, I had to ask them specifically to name ten men and ten women on the influence questions. This means that there is no way to make direct comparisons of men's and women's leadership scores. I could use the title of chief as a measure of leadership, but, there were so few women named as chief, that statistics would be deceptive.

I will resort, then, to a more indirect way of dealing with the question. Although I will not be able to give any definitive answers, the indirect analysis can be suggestive of some of the factors responsible for the differences in leadership between men and women.

One of the first things we might note are the relationships between aggression, height, and time

spent caring for children on the one hand, and the influence of men and women on the other. Table 7.1 shows that, in general, the traits associated with men--aggressiveness, height, and few child-care burdens--are all associated with greater leadership. The traits associated with women--less aggressiveness, shorter height, and more child-care burdens--are associated with less leadership.\* It seems that women who become leaders are more like males than are other women. If being more like a man gives one a leadership advantage, it is easy to see how males have the "upper hand" in decision-making.

But why should these "male" traits be so important in leadership? It is perhaps in answering this question that we can come closest to figuring out why men have relatively more influence than women. If we can figure out what there is about being tall, or being more aggressive or being free from child-care

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\*Exactly the same traits are not associated with men's and women's leadership. Aggressiveness, as measured by the T.A.T's is not related to female influence--possibly because of the few aggressive responses made by women in the stories. For men child-care burdens are not associated with influence--possibly because of the limited amount of time men spend with children. The point here is not so much that exactly the same traits are associated with leadership for both men and women, but that, in the case of those traits that are associated with influence, all are typically "male."

TABLE 7.1  
 AGGRESSION, HEIGHT AND TIME SPENT CARING  
 FOR CHILDREN  
 WITH  
 MEN'S AND WOMEN'S INFLUENCE

	Men's Influence	Women's Influence
Height	.41 <sup>***</sup>	.23 <sup>*</sup>
Reputation for Aggression	.48 <sup>***</sup>	.39 <sup>***</sup>
Aggression Score on T.A.T.	.19+	-.12
Time Spent Caring for Children	.14	-.34 <sup>**</sup>

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

that accounts for greater influence in both men and women, then we will be better able to evaluate the conditions under which women gain influence relative to men. The best way to proceed, then, is to take each trait in turn and examine different possible reasons for why it gives a leadership advantage.

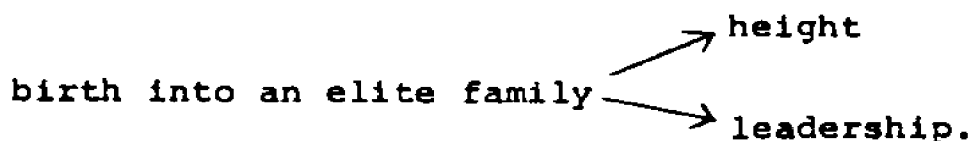
#### HEIGHT AND INFLUENCE

Why should height confer a leadership advantage among the Mekranoti? There are a number of possible reasons. First, height may be an indicator of strength. In a society where everyone does roughly the same activities, eats the same foods and gets the same exercise, tall people are probably stronger than others. Strength may give a number of advantages. First, it may help in the important activity of warfare. Stronger people are probably better fighters. Second, strength may make one a better worker, able to contribute more to subsistence and to help others out economically. In so doing, tall people may be able to build up economic ties that give them a loyal following. Still another effect of strength may be a greater tendency for aggression. Strong people may learn to be more aggressive because, as children or even as adults, they can get away with

roughhousing others. It is the resultant aggression that may account for greater influence.

There are also other possible explanations of why height gives a leadership advantage that do not require the assumption of greater strength in tall people. Gregor (1979) argues that people may admire height because of a general human tendency to think that "big is better." He points out that children are socialized into a world of adults--big people--and so naturally aspire to achieve height as an indicator of adulthood. Height for them becomes beautiful. Gregor (1979:14) comments for the group he studied that "to be highly regarded a Mehinaku must be physically attractive, and to be attractive, a man must be tall."

Finally, the whole correlation of height with influence may be spurious. Many writers comment on the greater height of ruling families in places like Polynesia. Perhaps because of differential upbringing (e.g., a better diet for the elite), elite parents may tend to have taller children. It is possible that it is not height, per se, that affects leadership, but rather birth into an elite family. That is:



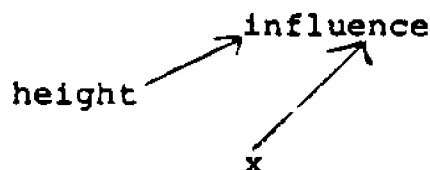
This is not so different from our own society where differences in height appear in the different social classes (Gregor 1979). Among the Mekranoti this same phenomenon may be at work. Although there are no ruling families as such, descendants of the main chief do have a leadership advantage over others in the village and so form a kind of elite family. Perhaps it is family membership that makes for both tallness and influence.

How do the Mekranoti data relate to these different arguments about height and influence? A number of intervening variables are suggested by the different hypotheses and could serve to replace the question mark in the sequence: height → ? → influence. The first argument suggests prowess in warfare as a possible link between height and influence. The second argument sees stronger people as more easily producing the goods with which to demonstrate generosity. Generosity, in turn, helps to build up economic dependents that make up one's following. A third argument sees the aggression that results from the ability to roughhouse others as the prime reason for the greater influence of tall people. A fourth argument sees height as beautiful, conferring prestige through a better appearance. Finally, another view

does not see height as a causally related factor in influence acquisition. Instead, it argues that the relationship between height and influence is spurious, due to the association of elite families with both influence and height.

Tables 7.2 and 7.3 show the correlations of height and influence with these different possible linking variables--prowess as a warrior, generosity, aggressiveness, good looks, and membership in the chief's family. Except for a slightly better tendency for height to correlate with a woman's generosity than with her influence ( $r=.26$  as compared with the original  $.23$ ), none of the correlations of height with the suggested linking variables are as high as the original correlation of height with influence. This raises doubts about the ability of these variables to serve as links. In many cases, causal models that see height and these other variables as having independent effects on leadership are more plausible.

For men, all of the proposed intervening variables are only slightly related to height. This suggests that height and these other variables may have independent effects on influence. That is:



(where x stands for these other variables). This same

TABLE 7.2

## MEN'S HEIGHT AND INFLUENCE WITH DIFFERENT VARIABLES

	Height	Influence
Reputation as a Warrior	.26*	.59***
Reputation as Generous	.26*	.53***
Reputation as Aggressive	.24*	.48***
T.A.T. Aggression Score	-.06	.20+
Reputation for Good Looks	.02	.15
Descendance from the Main Chief	.23*	.46***

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

TABLE 7.3

## WOMEN'S HEIGHT AND INFLUENCE WITH DIFFERENT VARIABLES

	Height	Influence
Reputation as Generous	.26*	.52***
Reputation as Aggressive	.10	.39***
T.A.T. Aggression Score	-.11	-.12
Reputation for Good Looks	.08	.03
Descendance from the Main Chief	.06	.16+

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

causal ordering is also most plausible for many of the proposed intervening variables between height and influence for women. Reputations for aggression, aggression scores on the T.A.T.'s, and descendance from the chief all seem to be related to influence independently of height. "Good looks" is related to neither influence nor height. Only in the case of generosity is the correlation between height and influence the weakest link. (The correlation coefficient for height and influence is .23, but generosity correlates with height .52). Thus, of all the variables examined here, generosity is the one most likely to account for the greater influence of taller people.\*

That generosity may account for some of the advantages height gives to Mekranoti females lends support to the argument that greater strength allows one to produce more with which to be generous and gain influence. But there are many unexamined links in the posited causal sequence: height → strength → greater production → more generosity → more economic dependents → greater influence. Given the relatively low correlation between height

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\*Analysis of partial correlations leads one to the same conclusions about intervening variables (see appendix 6).

and women's influence to begin with, and the numerous unexamined links, the role of generosity in mediating between women's influence and height should remain tentative. That generosity does not account very well for the correlation of men's height with influence also raises questions about its place as an intervening variable.

Perhaps the most impressive finding is that none of the posited links between height and influence really serves to explain the great leadership advantage enjoyed by taller males. It seems we must go back to the drawing board to isolate the important factors involved. The study of the role of height in economic discrimination and more general prejudice is important. Gregor (1979) suggests that height may be responsible for the advantages enjoyed by the dominant ethnic/racial groups in our own society, as well as for the job advantages of males over females. More research on this neglected topic is important in determining the reasons for broader kinds of discrimination, as well as in height discrimination itself.

#### AGGRESSION AND INFLUENCE

Another possible reason for the greater influence of men over women emphasizes the role of aggression

in leadership acquisition. But why should aggression confer a leadership advantage? Probably the answer that comes first to mind is that more aggressive individuals simply bully their way into power, or else express their aggressiveness in socially sanctioned violence. While groups such as the "harmless" !Kung may give the impression of great decorum and politeness in primitive societies, cross-cultural studies suggest otherwise. Masumura (1977) showed that intrasocietal violence is much higher in those societies where there are no superordinate means to punish offenders (e.g., police). Feuds and vendettas have a way of escalating unless some outside authority steps in to put a halt to the killings. Physical coercion, then, may be a real aspect to leadership acquisition.

These cross-cultural trends in violence are consistent with the Kayapó case, where, lacking superordinate means for punishment, physical violence in the form of homicide is very high. Aggression may be a valued trait among the Mekranoti either because of a tendency for leaders to bully their way to the top, or because aggressiveness is needed to carry out effective warfare. I have no way of testing the "bullying" argument directly, but I can see whether prowess as a warrior is really an important link between aggression and influence.

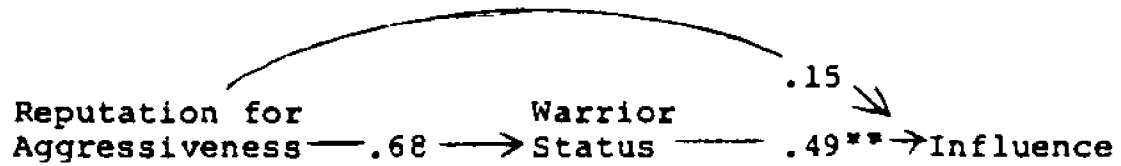
Chapter 5 showed the correlations between aggressiveness, status as a warrior, and influence. Consistent with the view of warrior status as an intervening variable, a reputation as a warrior correlated with both aggressiveness and influence better than these two variables correlated with each other. The correlation between aggressiveness and influence was .48, while the correlation of warrior status to aggressiveness was .68 and to influence, .59.

A path analysis (figure 7.1 and table 7.4) shows that warrior status accounts for about 69 percent (.33) of the original relationship (.48) between aggressiveness and influence. Apparently, a good deal of the leadership advantage of aggressive men stems from the value of aggressiveness in warfare.

If warfare does account for the tendency of leaders to be more aggressive, then what does this say about male/female differences in leadership? The Mekranoti data suggest that aggressiveness is important primarily because of a need for real violence to meet warfare threats. In societies less marked by violence we might expect aggressiveness to be less important. In this case greater aggressiveness on the part of men would not give them such a

FIGURE 7.1

PATH DIAGRAM OF MEN'S AGGRESSIVENESS  
AND INFLUENCE



\*\*p < .01

TABLE 7.4

BREAKDOWN OF PATHS BETWEEN  
AGGRESSIVENESS AND INFLUENCE

Original Relationship between Aggressiveness and Influence	.48
Direct Path	.15
Indirect Path via: Warrior Status	.33

great leadership advantage over women, and we might expect women to have more influence.

On the surface, cross-cultural data do not seem to agree with this view. Whyte (1978:130) shows that warfare increases some aspects of women's status-- particularly domestic authority and women's solidarity groups. But Whyte did not look at the relationship between war and political leadership itself. Therefore, there may be no discrepancy between Whyte's study and this one.

Another problem with the warfare argument concerns the advantage aggressiveness gives to women. How can we account for the greater reputation for aggressiveness in influential Mekranoti women? The women do not fight.

Although warfare may be an important arena for socially sanctioned use of aggression, there may be other areas of life where aggressiveness is also advantageous. For the Mekranoti, most violence in the past has taken place between villages, but in other societies, intra-community violence is also high. It is possible, then, that warfare is not the only reason for according greater prestige to aggressive individuals. A high level of violence, regardless of whether it occurs within the village, or between villages may be a better predictor of

cross-cultural variations in male/female leadership than is warfare, per se.

#### CHILD CARE AND LEADERSHIP

Probably the most popular explanations for male/female differences in leadership hark back to the child-caring capabilities of women. A number of writers have seen child-care as ultimately responsible for differences in the leadership of men and women. But the reasons given for the link between child-care and influence are quite varied. According to one view, it is the personality that results from taking care of children that best accounts for the lower influence of women. Others see the division of labor required by child-care as lowering a woman's contribution to subsistence or her ability to build up independent economic ties. Her lower economic capabilities are seen to result in a loss of power. Still another argument emphasizes the lack of ability to concentrate or to gather information when preoccupied with children.

How well do the Mekranoti data fit these different arguments? There seems to be little relationship between a man's influence and the time he spends caring for children (probably because men do so little child-care to begin with). But women's influence is affected by child-care burdens. Which of the above explanations

best account(s) for the relationship between child-care and the influence of Mekranoti women?

Diagrammatically, this amounts to asking which of the variables best replace(s) the question mark in the causal sequence: child-care → ? → lower influence.

#### Economic arguments

Perhaps the most popular argument about child-care and women's influence sees the need to care for children as resulting in a division of labor between the sexes which, in turn, reduces a woman's economic power. White, et al. (1977) argue that an initial assigning of tasks to one sex generally entails the performance of a whole series of other related tasks in order to make for an efficient division of labor. Since child-care requires that the infant not be exposed to danger, White et al. argue that women generally do jobs closer to home where a more "tame" environment is safer for children. The restrictions on travel, in turn, affect other aspects of the division of labor. Men generally do tasks that require them to range further from home, while women do tasks that can be performed more locally.

While White et al. do not talk about a resultant lessening of women's influence, other writers have made the connection between a woman's contribution to the economy and her potential influence

(cf. Sanday 1974; Friedl 1978; and Schlegel 1977). As the argument usually goes, women gain a certain amount of power when they contribute to subsistence because their labor is necessary to survival. If women do not get what they want, they can withhold this labor until the men are brought to bay.

Among the Mekranoti the only major subsistence activity that takes women away from the main village or encampment is gardening. It is gardening, then, that should be most affected by child-care burdens, if White, et al. are right about the effects of child-care on distant jobs. Women also gather wild foods on occasion, but this is a relatively rare work activity. Gathering of firewood or materials to make shelters on trek is an important task of women, but it does not require them to travel for as long a time, or as far from home as does gardening. When women gather firewood or housing materials they can easily leave their young children with someone else for the few minutes required for these tasks. Often they wait for the children to fall asleep before asking someone else to keep an eye on them. Gardening, on the other hand, requires a longer day, and people are less willing to take care of others' children. In the T.A.T. stories several people composed stories in which the husband and wife agreed

to alternate days to watch children in order to give time for the woman to garden and the man to hunt. But this is really workable only when the children are older. Comments made in the T.A.T. stories show that women who are out gardening are concerned about leaving nursing children behind in the village. "Hurry up. Let's get back to the village to nurse our children. They must be crying already." These are phrases heard several times during the T.A.T. interviews. In any case, child-care does seem to detract from a woman's ability to participate in gardening activities. The correlation between time spent caring for children and time spent at gardening is  $-.24$ .

Chapter five showed a slight tendency for women who garden more than others to rate higher on leadership ( $r=.16$ ). A loss of time devoted to gardening, then, could possibly account for the lower influence of women who care for children. But, as in previous chapters, only control analysis can establish gardening as an intervening variable between time spent caring for children and lowered influence.

Not all writers on the economics of male versus female influence emphasize the straight-forward contribution to subsistence as the main economic reason for women's lower status in many societies. Another

argument sees control over goods rather than production as the primary basis for power differences. According to this argument it is through trade that one establishes independent ties outside of the nuclear family, and it is these ties that help one gain influence. Lewis (1977), for example, sees the economic relationships Ivoirian women establish with others, independently of their husbands, as one of the prime reasons for the relative sexual autonomy of females in this society. Other writers also stress trade rather than production (Sutton and Makiesky-Barrow 1977; Mintz 1971; Sacks 1974). Although they differ in the particulars of their arguments, all see the control of goods for exchange with a broader world as an essential factor in gaining influence. Most of these writers think of trade in terms of intervillage exchanges, but more local trade may also be important.

Among the Mekranoti, trade with outsiders is rather restricted. Because of the isolation of the Mekranoti village from other settlements, very little exchange takes place outside of the village. The Indians work for the Brazilian Indian Foundation (FUNAI) gathering Brazil nuts and manufacturing handicrafts, but there is little opportunity to trade with specific individuals within FUNAI or with other

outsiders. In exchanges with resident anthropologists, missionaries or FUNAI officials, men and women can establish independent ties, although married couples tend to trade together as a unit. Still, there is some priority given to men. When I conducted the T.A.T. stories, the women insisted I first interview all of the men before beginning with the women. This meant that men got first pickings on the trade goods I brought in as payment for the lengthy interviews. Although trade with these resident outsiders is somewhat important to the Mekranoti, it is limited and temporary. Trade with other Mekranoti is much more important. Any significant economic ties one builds up among the Mekranoti are with members of one's own village.

If child care detracts from activities like gardening, it may also limit one's ability to produce goods to trade with others. To what extent does child-care detract from one's ability to enter into exchange relationships? Unfortunately, I do not have data on actual exchanges or economic ties. But, as in chapter 5, I can use reputations for generosity as an indicator of the extent to which individuals have been able to build up economic dependents. There is a tendency ( $r=.40$ ) for women who garden more to have

reputations as generous, but the relationship between generosity and time spent caring for children is weak and non-significant ( $r=.14$ ). It seems, then, that women who must spend more time taking care of children are not seriously hampered in entering into economic relationships with others--at least as measured by their reputations for generosity.

### Friendship Ties

While child care burdens apparently do not have much effect on a Mekranoti woman's economic ties, they may affect her ability to maintain friendship ties. First, women may be too preoccupied with children to have many friends of their own. Also, some Mekranoti do not like to be around screaming children. Often at night people would come into my house because, as they put it, "there was too much noise from the children at home." Once I saw a man sitting behind a knee-high board which he was using to blockade the entrance to his house. Normally, the Mekranoti leave their doors open, boarding them up only at night or when departing for a trek. So I asked him why he had made this partial blockade. He replied that he had been bothered during the day by children and dogs and wanted to keep them out. The men's house is also off limits to noisy children, although well behaved ones may remain with their fathers. According to one

woman's T.A.T. story, women, too, sometimes trick their children into leaving (by sending them off with food or to look for something) in order to gain a little peace, if only temporarily.

Is it possible that a mother's association with disruptive children discourages people from maintaining friendship ties with her? The correlation between the time a woman spends on child-care and the number of her friends is negative and significant ( $r=-.35$ ), consistent with the argument that child-care detracts from a woman's friends.

#### Aggressiveness

The role of aggressiveness in mediating between child-care burdens and influence is difficult to assess. It may be that child-care detracts from aggressiveness because caretakers, to be effective, must suppress feelings of aggression when dealing with helpless children. If aggressiveness is needed to become a leader, then caretakers may be at a disadvantage in acquiring influence. The Mekranoti data are clear in supporting the argument that child care detracts from aggressiveness. Both peer ratings and T.A.T. scores of aggressiveness show negative correlations with the time spent on child-care. But correlations of aggressiveness with influence are inconsistent. The peer ratings correlate well with leadership ( $r=.39$ ),

but the scores on the T.A.T.'s do not ( $r = -.12$ ). Furthermore, and most difficult to understand, the peer ratings of women's aggression do not correlate with scores from the T.A.T.'s ( $r = -.09$ ). There is some discrepancy between the two measures. Perhaps there were so few aggressive responses on the T.A.T. stories that this measure is too inaccurate to give reliable results. In any case, the aggressiveness that is measured by the T.A.T. responses cannot account for women's lower status since it does not correlate with her leadership. If there is anything to the argument that child care is responsible for the lower status of women because of a suppressing of aggressive impulses, then the peer ratings are most likely to show it.

#### Ability to Concentrate

Another argument about male/female differences sees child-care as distracting, making jobs that require long periods of concentration impossible (Schlegel 1977:35; Brown 1970:1074). After conducting interviews with women who brought their nursing infants along, I would certainly agree to the distracting nature of children. Although I allowed women to bring their children for some earlier interviews, with the T.A.T. studies I insisted that women come for interviews without their children.

The importance of concentration is difficult to assess. The closest indicators of a woman's concentration habits that I collected are the peer ratings on intelligence. A reputation for intelligence, undoubtedly, includes a lot more than concentration, but for lack of a better measure, I compared time spent on child-care with intelligence reputations. The correlation was in the right direction, but only marginally significant ( $r = -.19+$ ). Better measures of concentration habits may yield better results.

#### Knowledge/Information

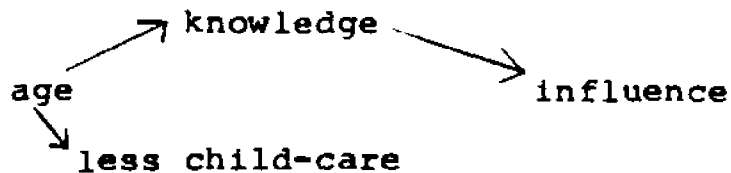
In her comparison of sedentary and nomadic !Kung, Draper (1975:82) remarked that where women travel widely during the day they are able to return to the village bringing "information as well as food." This information is valuable in making decisions about important village affairs like when to move the camp or where to hunt. With agriculture and sedentarization women are no longer able to acquire this information. Consequently, they are less able to make informed decisions about many village affairs. While Draper stresses information about the environment, there are many other areas where women may fail to gather the knowledge available to men. If a woman is busy with child-care, she may miss many details about things going on inside the village. The Mekranoti

village is large in comparison with most native South American societies, and events that take place at one end of the village can easily be missed by those at the other end. Some moments when a great deal of important information is transmitted may also be missed by mothers busy with their children. When resident FUNAI officials speak over the radio with officials in Belém, or especially when Mekranoti leaders speak over the radio with leaders from other Kayapó villages, noisy children must be kept away from the broadcast. Women who care for these children, then, are also excluded from the broadcast, and miss this information. Women who are busy watching children may also miss more of the information that is transmitted during the nightly harangues when village affairs are discussed. Finally, if women with children have fewer adult friends to talk to, they may be in a poor position to know much of what goes on in the village.

Child-care burdens are negatively related to a woman's reputation for knowledge ( $r = -.32$ ), supporting the above arguments about the detrimental effects of child-care on information acquisition. But before attributing too much to this argument, another possible reason for this correlation should be explored.

Age

While child-care burdens may indeed detract from the information one can acquire, the correlation between knowledge and child-care burdens may be spurious. In chapter 6 we saw how knowledge generally increases with age. Since it is younger women who have young children and are most saddled with child-care burdens, it is possible that women who do child care rate lower on knowledge and influence simply because they are younger ( $r = -.31$  between age and child-care burdens). Diagrammatically, it may be that:



To test for an independent effect of other variables, age must be controlled for.

In sum, there are a number of possible reasons why Mekranoti women who spend more time taking care of children are less influential than others. They may be too young to have influence; they may be unable to contribute their share to subsistence (especially gardening); they may be less aggressive; they may be less able to concentrate on important problems; they may have less access to information; or they may have fewer friends.

Table 7.5 summarizes the correlations of both influence and child-care burdens with the potential intervening variables. The original correlation between a woman's child-care burdens and influence is  $-.34$ . For a third variable to "intervene" between these two original factors, it should show correlations higher than  $|.34|$  with both influence and child-care burdens. Only one variable meets these criteria-- the number of one's friends.\*

Comparing the sizes of correlation coefficients, we can arrange "friendship ties" in between "child-care" and influence. Diagrammatically, child-care — friendship ties — influence. But putting variables in order does not necessarily tell us anything about causal directions. We cannot assume that child-care burdens cause one to have fewer friends. It is also possible that fewer friends cause one to turn to child-care. Also, it may be the case that friendship does not enhance leadership; instead, the causal direction may be reversed. Greater influence may make it easier to have more friends. Only longitudinal studies can empirically establish

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\*Analyses of partial correlations leads one to exactly the same conclusions with regard to intervening variables (see appendix 6).

TABLE 7.5

SUMMARY OF CORRELATIONS WITH WOMEN'S  
INFLUENCE AND TIME SPENT CARING  
FOR CHILDREN

	Time Spent on Child-care	Influence
Time Spent Gardening	-.24*	.16+
Reputation for Generosity	-.14	.52***
Aggression Score on T.A.T.'s	-.24*	-.12
Reputation for Aggression	-.24*	.39***
Reputation for Intelligence	-.19+	.67***
Reputation for Knowledge	-.32**	.53***
Number of Friends	-.35***	.40***
Age	-.31***	.48***

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

causal directions. But, as in earlier chapters, the point here is to distinguish among alternate arguments by eliminating those that are empirically less able to account for the data. Of all the potential intervening variables examined here, only "friendship ties" survives the empirical analyses of this chapter.

How well do "friends" account for the relationship between child-care burdens and influence? Figure 7.2 and table 7.6 show the empirical results of a path analysis that traces the friendship variable as intervening between child care and influence. The loss of friends through preoccupations with children accounts for slightly less than one third of the original correlation between child-care and influence (.11 out of .34). Apparently, there are other factors that are also important in explaining the relationship between child-care and women's leadership. None of the other factors examined here provided good explanations. Future research might devote some thought to alternate arguments.

#### Child-Care Cross-Culturally

What are the implications of these findings? First, we might note that some of the most popular hypotheses about the effects of child-care on women's influence receive less support than less popular

FIGURE 7.2

PATH DIAGRAM OF WOMEN'S  
CHILD-CARE BURDENS AND INFLUENCE

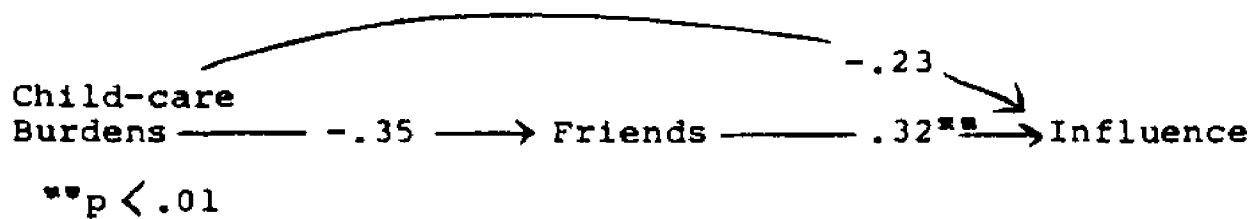


TABLE 7.6

BREAKDOWN OF PATHS BETWEEN  
CHILD-CARE BURDENS AND INFLUENCE

Original Relationship between Child-care Burdens and Influence	-.34
Direct Path	-.23
Indirect Path via: Friends	-.11

views. Contribution to subsistence and generosity are not nearly so important in accounting for the Mekranoti data as is the number of one's friends. The cross-cultural data also fail to support the argument that contribution to subsistence dictates women's leadership status. Neither Sanday (1974) nor Whyte (1978) found correlations of women's influence with greater contribution to subsistence. Perhaps too much attention has been devoted to this variable in the literature.

The Mekranoti data suggest a number of other hypotheses that might be tested cross-culturally. First, the relative child-care burdens of men and women should correlate with women's leadership in particular societies. Zelman (1977) found some indirect statistical support for a relationship between women's power and the relative sharing of child-care burdens with men, but her data are not presented in the form of straight-forward correlations and so are difficult to evaluate.

The role of child-care on friendship ties has been little explored in the literature. Some writers mention the importance of maintaining social contacts with other women (Murphy and Murphy 1974; Lewis 1977; Sutton and Makiesky-Barrow 1977), but contacts with men

are probably also important. No one has attempted to use the cross-cultural approach to relate greater social contacts for women to women's role in leadership. The relative restriction of women to private domains may have some effect on their ability to build-up friendships, but other societal features, such as visiting patterns or settlement patterns may also be important. Any custom that allows women to talk to both men and women on a friendly basis would presumably increase her ability to build up the friendship ties necessary for leadership. More research on the effects of child care on friendship is in order.

#### MALE AND FEMALE LEADERS AMONG THE MEKRANOTI

Correlational data suggest that the Mekranoti value certain male traits over female traits. This same valuation on "masculinity" is also illustrated with anecdotal data. First, there may be a general preference for males in Kayapó society. There is some indication that the Mekranoti may have practiced female infanticide. I never heard an informant indicate that male babies were favored over female ones, or that infanticide was preferentially female. (The Mekranoti did admit to infanticide.) But when asking about the causes of death for the people who showed up in the Mekranoti genealogies, I found five reports of female babies who

died at birth, but no reports of male stillbirths (tables 2.4 and 2.5, chapter 2). This suggests that female babies were more likely to die at birth than were males.

There are also other indications that the Mekranoti value male traits above female ones. At one point during fieldwork I asked several informants to name women who "are like males," and men who "are like females." When naming "masculine" women, the informants spoke with admiration about the strength and skill of the women who resembled men. Prekti, one of the women's chiefs, was considered somewhat "like a male" because she sometimes went out hunting on her own. Lacking a gun, she would dig up armadillos and chase pacas, clubbing the animals to death. (Two other women were also named as more "masculine" for the same reason.) Both male and female informants found it admirable that a woman could perform these typically "male" activities. On the other hand, when naming men who were "like women," informants were somewhat less admiring. Xwakre was named as more "feminine" because he often carried garden produce home to his wife and children. He also did not hesitate to fetch water from the local river. Karadja, too, was considered somewhat "feminine" because he spent

a great deal of time stirring manioc flour as it toasted on the village manioc griddle. Although Karadja and Xwakre were not derided for these activities, some informants did find it amusing that men would have to do this kind of work. Thus, while women were admired for acting more like males, men were somewhat pitied for having to engage in female chores.

Why should more value be placed on performing male chores rather than female ones? One possibility is that male chores require greater strength or more versatile skills than female ones. The women sometimes told me that women were not so smart as the men, who knew about the world outside the village. The men could also hunt, make war, and manufacture goods--all activities that most women never attempted to do. On the other hand, most men had, at one time or another, performed female chores. Although gardening was primarily women's work, the men sometimes did help out, harvesting and carrying produce back to the village. The men also baby-sat at times when their wives needed to go out to collect firewood or bring in garden produce. Thus, while the men were fairly familiar with all of the women's activities, the women were much less aware of the kinds of things men did. As a result, it may not have been an honor for a man to perform female

chores--all males could do them if required. But it was admirable for a woman to be able to do things men did--not even all the men, for example knew how to manufacture all of the Kayapó handicrafts, and not all men had the stamina to chase after peccaries.

Respect for the male trait, aggressiveness, may also be based on the importance of male tasks--in this case, warfare. A man had to be "fierce" in order to succeed in battle. Aggressiveness might also have been important for women, even though women did not generally go on war raids, and did not fight. (The few times when women did accompany the men, they remained behind in a safer village while the men did the actual fighting.) But, while women did not participate in war expeditions, there were times when they had to defend themselves against enemy attack. The Kayapó and their enemies did not hesitate to kill women and children when invading enemy villages. A woman had to be able to defend herself and her children, if only long enough to reach a hiding place in the forest. Thus, some degree of aggressiveness was valued in these situations.

Another occasion when female aggressiveness might be valued occurs when fights break out among the men of

the village. Once, during a ceremonial wrestling match, Bõtire decided to pit his wrestling skill against Me'ybam. (The men from the Mĕ'õtoti men's society were challenging the Mĕpa'ākadjät and the nõrny.) Me'ybam's sister, Nhāk'õ felt that this was an unfair match. Bõtire was older and stronger than Me'ybam. She ran into the plaza where the men were wrestling, and attacked Bõtire. The attack was justified on the grounds that Bõtire and Nhāk'õ were joking in the manner befitting a person with his or her krabdjw's spouse. But the attack was real, and the supposed krabdjw relationship fictitious. (No one could specify the krabdjw connection between Nhāk'õ and Bõtire.) This case was resolved easily. Bõtire was shamed into seeking another partner. But with more serious fights in the past, the intervention of women had more important consequences.

There is another area where the respect the Mekranoti give to male characteristics might, in part explain the role of friendship ties in mediating between a woman's child-care burdens and her influence. Several times during fieldwork I heard complaints that the kurere-re (adolescent girls) no longer run around together in large groups as they once did in the past. It is good to congregate with a large number of people,

they say. But today, it is mostly the men who assemble in large gatherings. From boyhood on, males spend their time in the company of larger groups of individuals. This gives them an advantage in understanding the workings of village politics, for they can see a larger section of society together, thereby gaining a more representative view of public feelings about issues. In part, the women may be restricted by their child-care burdens to smaller groups. Several times when gathered for painting sessions, for example, women had to temporarily leave the group to attend to the needs of their children. Thus women may be less able to follow village politics.

In sum, both anecdotal and correlational data confirm a male bias among the Mekranoti. In part, this bias may result from differences in the strength or skill required for the various kinds of chores men and women perform. Male traits like aggressiveness may be valued because of a need for "fierceness" in warfare or village disputes. Finally, the tendency of women--especially child-caring women--to congregate in smaller groups than the men, may put women at a disadvantage in learning about politics.

## SUMMARY AND CONCLUSION

Among the Mekranoti-Kayapó, women enjoy a great deal of autonomy in their own affairs--painting sessions, communal gardening, and women's ceremonies. But when it comes to decisions that concern both men and women, men seem to have more say over what gets done. Three major explanations for leadership differences that begin with assumptions about basic sex differences were examined among the Mekranoti. The basic sex differences were confirmed--Mekranotimen are more aggressive, taller, and have fewer child-care burdens than women. All of these characteristics are associated with leadership. Both tall men and tall women are more likely than their shorter counterparts to be influential. Both aggressive men and aggressive women (at least as measured by reputations) are also more likely to be leaders. Finally, women who spend less time on child-care wield greater influence. This suggests that the advantages enjoyed by men on these basic traits may account for their leadership advantage.

Explaining why these traits are related to leadership is another problem. Aggression seems to be important among the Mekranoti because of warfare. To some extent child-care seems to prevent women from building up friendly ties with others, thereby impeding their ability to establish a following.

Height is more difficult to explain. None of the variables examined accounts for the greater influence of tall men and women.

The findings presented here are only one small part of what is needed to statistically document the sources of male/female differences in leadership. Additional research and more finely tuned cross-cultural studies may clarify some of the relationships outlined here.

## CHAPTER 8

WHY DO THE CHIEF'S DESCENDANTS HAVE  
A LEADERSHIP ADVANTAGE?

The question of ranking has long interested anthropologists. Often seen as representing a stage in political evolution, ranked societies are usually characterized as having inherited leadership positions, specially privileged kin groups, a redistributive economy, and a hierarchical organization for decision-making (Fried 1967; Johnson 1978; Wright 1978). Writers often assume that these "diagnostic" characteristics of ranking all occur in the same societies, and they orient their theories toward explaining a complex of "ranking" traits, rather than any individual characteristic. But some recent writers (Peebles and Kus 1977; King 1978; Sanders and Webster 1978) suggest that traits like "redistributive economy" do not covary with traits like "privileged kin groups." In Africa, especially, chiefs' lineages may outrank other lineages, but the redistributive power of the chiefs is very minor (Sanders and Webster 1978:270-271). This makes questionable the validity of a concept that incorporates all of these different aspects of society into one definition

of ranking. Ranked societies, then, should be defined more narrowly, and explanations limited to more specific topics.

In this chapter I am concerned with explaining only one aspect of "ranking"--the inheritance of leadership positions. It is leadership inheritance that forms the core of Fried's (1967) notion of ranking, and is of most concern to some recent studies (Sanders and Webster 1978). A closer look at the reasons for leadership inheritance in one society can help to suggest some of the reasons for cross-cultural variation in "ranking."

By most standards the Mekranoti would not be considered a ranked society. Their economy does not depend on redistribution. Except for a small amount of rice, food is not stored in communal granaries for later consumption, and there are no chiefly redistributors. Neither are there notably privileged kin groups or clearly distinguishable decision-making bodies. Finally, although informants have reported that certain historical figures became chiefs "because their fathers were chiefs," there is no hard and fast rule that dictates leadership succession. Most anthropologists would probably classify the Mekranoti as an egalitarian, rather than a ranked society.

But there is one "unequalitarian" feature of Mekranoti political life--the village chief's descendants are in a privileged position with regard to leadership. Two of the main chief's sons are recognized as "benjadjwɔr" (chiefs), and the chief's adult sons and grandson rate higher on peer ratings of influence than do other Mekranoti males ( $r=.46$ ,  $p<.001$ , for the relationship between descentance from the chief and influence reputations for males). The chief's adult daughters and granddaughter also seem to enjoy a slight leadership advantage. One is known as the women's "benjadjwɔr" for her women's society. In general the chief's female descendants also rate slightly higher on peer ratings of influence than do other Mekranoti females, although the relationship is weak and only marginally significant ( $r=.16$ ). It seems males are the ones who most benefit from a prestigious father. This tendency toward inheritance of a leadership position is a very "rank"-like characteristic of Mekranoti society.

Why do descendants of the chief have a leadership advantage over other Mekranoti? This question has important implications for the inheritance of leadership in other societies. If we can figure out what it is

about the chief's sons and daughters that gives them a leadership advantage among the Mekranoti, then we are in a better position to evaluate arguments about leadership inheritance in other societies for which less systematic data are available. As in other chapters, this argument can be phrased in terms of a search for the intervening variable(s) that best replace(s) the question mark in the causal sequence; descendance from the chief → ? → leadership. Let us review some of the major arguments anthropologists have given to explain leadership inheritance elsewhere and compare these arguments with data from the Mekranoti.

#### EXPLANATIONS FOR LEADERSHIP INHERITANCE

##### Redistribution

Probably the most popular explanation for ranking stresses the importance of economic redistribution. According to this view, the need to provide centralized redistribution of goods requires the placement of special persons to act as redistributors. In his well-known study of Polynesian societies, Sahlins (1958) argues that the degree of ranking in these societies can be predicted on the basis of the productivity of the local environments and the consequent ability to produce surplus goods which need distribution. Fried (1967:118) argues that "the

regularity of the role of village redistributor conveys prestige and bolsters political status." Others also adopt the redistribution view of ranking (Wright 1978; Harris 1977; King 1978). By giving out goods, people in the centers of redistribution networks are presumably able to gain some form of economic control over others. They can use this control to build up political alliances. In the end, redistributors may be poorer than everyone else, but this does not matter, since it is the control over the flow of goods that presumably counts.

While it is understandable how redistribution may give special prestige and influence to the givers of goods, explanations for how redistribution leads to inherited leadership positions are not always clear. Is there any reason why the role of redistributor should pass to sons? Most writers simply assume that fathers would somehow be able to give their sons a leadership advantage--sometimes only after the father dies. But this does not explain the mechanism for passing on their advantage. Nor does it explain why others would be willing to accept the son in his father's old position. One possible mechanism is that redistributors are apt to favor their own sons over other people in making prestations. These sons may, in turn, use the extra goods given to them to carry

out their own smaller redistributions and build up political alliances of their own. Thus, fathers can pass on their positions by giving their sons the goods necessary to gain prestige on their own.

How well do the Mekranoti fit this scheme for redistribution? First, we should note that very little is redistributed by the chief in the Mekranoti community. There are communal rice gardens planted by members of the different men's societies, whose rice is harvested and stored in a special hut. It is eaten only rarely (there is not much of it) on special occasions when people do communal work, like transporting stones for the airstrip. At this time the rice is cooked and distributed by the men's wives from the chief's house--a small redistribution. The only other form of redistribution carried out by the chief occurs when FUNAI brings in goods in payment for the Brazil nuts gathered by the young men. This is, admittedly, an important redistribution, but it is increasingly being replaced by more careful accounting procedures on the part of FUNAI in which specific individuals are paid for their own contributions to Brazil nut gathering.

Second, the role of the chief's sons in redistribution is questionable. Once, after giving the chief some goods that I brought into the village to redistribute

to the Indians, some people came by my hut to complain to me that the chief had distributed the goods primarily to his "own people." It is unclear what they meant by "his own people." They may have been referring to the chief's own family, but, at least in part, they also seemed to be referring to his men's society. In any case, there was no indication that the chief's sons used goods given to them to redistribute in turn.

The role of the chief's descendants in redistribution can be evaluated statistically by using the peer reputations for generosity. Presumably, those who give away more goods would have a greater reputation for generosity. We saw in earlier chapters how leaders are generally thought to be more generous than other people ( $r=.53$ ,  $p < .001$ , for males, and  $r=.52$ ,  $p < .001$  for females). The chief's sons and grandson, however are not particularly known for their generosity ( $r=.12$ , n.s.). This does not support the argument that the chief's descendants gain their leadership advantage by an ability to act as redistributors. In all, then, the redistribution argument for leadership inheritance does not receive much support from the Mekranoti data.

#### Avoidance of Factionalism

Another, somewhat less popular argument, sees the need to avoid factionalism when a leader dies as the

primary reason for adopting a rule of leadership inheritance. According to Burling (1974), leadership succession is a potentially disruptive event. Especially where leaders hold their positions until they die, the problem of choosing a successor can become problematic. No one knows at these times who will become the new leader, or how new political alliances will shape up. With no clear-cut leader, political factions may develop around different candidates. These factions can become hostile and disruptive to the smooth functioning of society.

Under nomadic conditions the formation of hostile factions is not so serious a problem as in sedentary societies. As argued by Burling (1974), nomads can pack up their belongings and move away from leaders they dislike. But sedentary peoples cannot move away. They must learn to deal with potentially disruptive political maneuverings--preferably, by eliminating factionalism as much as possible. At the death of a leader, sedentary societies need to provide some way of assuring continuity in political alliances. The easiest way to do this is to allow a descendant of the former ruler to assume power. In this way, earlier allegiances can be maintained by the relatively easy transference of former loyalties from father to son.

Several other writers also discuss the importance of leadership inheritance in avoiding factionalism over leadership succession. Powell (1960) documented the interfactional fighting that occurred among the Trobrianders when a leader died without a clear successor. He emphasizes the role of ranking in making the process of leadership transition easier. If it does not result in exactly the same political factions as before, inheritance of the chief's position at least provides the new leaders with a nucleus of a following. Burling (1974), Wright (1978:220), Johnson (1978), and Marshall (1960) also stress the role of leadership inheritance in lessening potential problems of continuity.

How well do the Mekranoti data fit this argument for leadership inheritance? One of the most important assumptions of the factionalism argument is that fathers and sons have the same or similar allegiances. This assumption is questionable for the Mekranoti. The Mekranoti history shows village splits in which brothers were separated from each other and from their fathers. Sometimes factions formed on the basis of men's society membership, or on the basis of age grade membership. There is no guarantee, then, that close kin share the same political alliances in Mekranoti society. The friendship ratings of the Mekranoti

show a similar failure of kin relations to override other forms of factional groups. In naming their closest friends (for conversation), Mekranoti males gave the names of 107 male friends. Out of these 107 friendship links, only 15 linked genealogical kin together. Overwhelmingly, people named non-kin as friends--mostly members of their own men's society or age grade. This is particularly impressive when coupled with the knowledge that Mekranoti males have, on the average, eight adult male relatives from whom to choose their friends. The assumption that leadership inheritance allows for continuity by maintaining the same political factions from ruler to ruler seems unwarranted in the Mekranoti case.

There is still some possibility, though, that the chief's descendants have an advantage in terms of the following they can acquire during their father's chieftancy. Since the sons are probably closer to the chief than anyone else, they may be able to attract followers who would not approach the chief directly for requests, etc., but who would be interested in making their opinions known to the chief, indirectly, via his sons. A chief's son may attract friends who can later become part of his political following. How well do the chief's descendants fare in acquiring friendships? A correlation of .20 ( $p < .10$ ) indicates

some tendency for the chief's descendants to have more friends than do other Mekranoti, but the association is not very great.

### Demographics

Another argument about the political allegiances of the chief's descendants sees sibling ties as more important than anything else. According to Chagnon (1979), leaders enjoy a greater reproductive success than other individuals in many "egalitarian" societies. Especially where there is polygyny a male leader may have many more children than other men. Chagnon documents this process among the Yanomamo. He argues that Yanomamo brothers, all descendants from the same leader, form a dominant kin group simply because they outnumber any other sibling group. The leadership advantages of the chief's descendants, then, stem from this membership in a larger kin group.

The Mekranoti are not polygynous, but Bebgogoti, their chief, has more living descendants in the village than any other man. He has 5 adult sons, 1 adult grandson, 3 adult daughters, and 1 adult granddaughter, as well as many small grandchildren and great grandchildren. It is unclear whether he managed to have more children because, as chief, he was able to find new wives when previous wives were past child-bearing years, or whether his having many children

accounts for his high status. In any case, chapter 5 did show that men with more sons have more influence than others. Can the number of one's brothers account for the greater influence of the chief's descendants among the Mekranoti? A high correlation of .65 ( $p < .001$ ) between the number of one's brothers and descendance from the chief suggests that this is a possible reason for ranking among the Mekranoti.

### Learning

Wright (1978) argues that, besides lessening problems of continuity and recruitment, a rule of leadership inheritance also lessens training problems. Having grown up in the company of a leader, the chief's child is already more experienced than others in the workings of the chieftancy. This gives him a decided advantage in pursuing a chiefly career.

The existence of an apprenticeship phase to leadership positions is an indication of the importance of training in some societies. Among the Fon, Ritzenhalter (1966:81) describes how the chief, when making tours of the village, requires his son to follow him about in order that the son know how to analyze political situations and perform chiefly duties. In native South America, Maybury-Lewis (1974:191-195) describes how Xavante chiefs set their sons up as leaders of age sets as a prelude to assumption of the chief's position. Among the Xikrin-Kayapó, Vidal

emphasizes the role of leadership in the younger age grades as an important antecedent to becoming a village leader. In these lesser leadership roles the chief's sons learn, through practical experience, how to act as leaders.

For the Mekranoti the only "apprenticeship"-like position is that of chief of the younger section of a men's society. There are only two such "junior" chiefs in the Mekranoti village, but of the two, one is a chief's son. This "junior" chieftaincy may provide one important kind of leadership experience, but there are also other areas where learning may give a leadership advantage to the chief's descendants. Young men may also become experienced as shamans, ceremonial leaders, warriors, craftsmen, or hunters. With a ~~father~~ father who is already experienced in these areas, the chief's sons can get a headstart in learning.

How much of an advantage do the chief's descendants have in obtaining specialized knowledge or experience? As shown in chapter 6, many kinds of experience are acquired with age. Since the descendants of the chief happened to be younger than other Mekranoti males, they were at a disadvantage in acquiring these specialties. Indeed, the chief's descendants were less likely to have roles as shaman ( $r = -.17$ ,  $p < .10$ ), or as haranguer ( $r = -.11$ , n.s.). Knowledge

of Indian things (general knowledge), and knowledge of ancestors, which also increase with age, are similarly unrelated to descendance from the chief ( $r=.02$ , n.s., and  $r=.16$ , n.s. respectively). These areas of expertise then, cannot account for the greater influence of the chief's descendants. The chief's sons have greater influence than others, even without these specialized roles and skills.

In other areas, however, the chief's descendants do seem to have an advantage. They are recognized as better craftsmen ( $r=.19$ ,  $p < .10$ ), as better hunters ( $r=.39$ ,  $p < .001$ ), as better warriors ( $r=.26$ ,  $p < .05$ ), and as more knowledgeable about ceremonies ( $r=.39$ ,  $p < .001$ ). (The correlation with knowledge about ceremonies is somewhat surprising since ceremonial knowledge is highly correlated with greater age. It seems the chief's sons and grandson have a special "in" on ceremonial knowledge. At one point in my fieldwork I recorded one of the chants the chief sings in his hut at night to "bless" certain gifts given to people in the village. One Indian was particularly interested in using my tape to learn this chant since he had no other way of hearing it. The chief's sons are clearly in a better position to learn this kind of ceremonial lore.) There are some areas, then, where the chief's descendants do seem to have a learning advantage over others. These advantages might possibly account for their greater influence.

### Personality

Besides learning specific skills from their father or grandfather, the chief's descendants may also pick up personality traits. As a part of the general identification with their father, the chief's sons may learn to imitate his leadership characteristics. A trait like ambition might easily be learned by children exposed daily to the center of village power. Kelley (1978) mentions ambition as one of the reasons for the correlation between fathers' and sons' occupational statuses in Western societies. Another possibility is aggressiveness, which may also be learned by children who observe it in their caretaker's behavior.

The Mekranoti do not talk much about individual personalities--at least not in public places. Very few people referred to characters' personalities in the T.A.T. stories, and I never heard comparisons of a person's personality with his or her parents' personalities. Nevertheless, there may still be a relationship between parents' and childrens' personalities even if the Mekranoti are unaware of it, or are unwilling to discuss it.

With regard to ambition and aggressiveness, the chief's sons do rate higher than other Mekranoti ( $r=.52$ ,  $p < .001$  for ambition, and  $r=.26$ ,  $p < .05$  for aggressiveness). It is possible then that these

characteristics may account for the greater influence of the chief's descendants.

### Height

In chapter 7, I noted that the chief's descendants are generally taller than other people ( $r=.23$ ,  $p<.05$  for males). At that time I was interested in the possibility that membership in an elite family--namely the chief's--might account for the relationship between height and influence. It did not. But this leaves open the possibility that greater height may account for the increased influence of the chief's sons and grandsons. The chief, himself, is one of the two tallest men in the village. If for genetic or other reasons the chief's descendants tend to be taller than others, then this might account for their leadership advantage. The Mekranoti chief is quite interested in the height of his children. When lauding the virtues of his sons, he carefully describes them as tall. But, as the low correlation (.23) between height, and being a male descendant of the chief indicates, the height advantage of the chief's sons is not that great.

### Intelligence

Another characteristic that may or may not be genetically inherited, but that often runs in families is intelligence. Among the Mekranoti the peer reputations for intelligence correlate well with influence, and the chief's sons and grandson rate

higher in intelligence reputations than do other Mekranoti ( $r=.48$ ,  $p<.001$ ). Greater intelligence, then, may be one of the reasons for the leadership advantage of the chief's descendants.

#### Contact with Western Society

There is one possible reason for leadership inheritance that has not yet been discussed. As I mentioned earlier one of the chief's sons is considered a chief among the Mekranoti because a FUNAI official, in visiting the village, once casually remarked that, since Bōtire was the chief's son, he would be the next chief. Actually, this Funai official is not alone in his special treatment of the chief's descendants. Other outsiders also accord greater prestige to the chief's family. The missionaries in the village use the chief's sons as informants in their efforts to translate the Bible into Kayapó. The medical attendants, and (I confess) the anthropologists in the village also give special attention to the chief's descendants. Knowing that getting along with the main chief is of great importance in relations with the Indians, outsiders find it prudent to show special caution when dealing with the chief's family. Any complaints by members of his family get quickly back to him and can result in tense relationships between outsiders and the chief. This may prejudice relationships with the entire village.

Actually, the tendency for outsiders to deal more with the chief and his family than with others may not be a new phenomenon. Looking at the evidence from archeology, Peebles and Kus (1977) argue that ranking probably developed in many places where separate groups needed to unite to carry on trade or warfare. Peebles and Kus do not provide a mechanism to explain why unification of different groups would result in inherited leadership positions. But it is easy to see how the same phenomenon that occurs with contact situations might also have occurred in the past, whenever separate groups needed to get together to cooperate in some specific activity. Since outsiders could not possibly come to know people and gain their trust as well as natives of a village, they most likely limited themselves to knowing a few people well--probably members of one family, since it is easiest to deal with a family unit. If the relationship with outsiders became an important part of daily affairs, then the "culture brokers" could begin to play a key role in life, thereby gaining power and prestige. If the culture brokers consisted of a family, then ranking had already begun.

What indication is there that the chief's descendants are especially privileged with regard to contact with outsiders? Probably the best indicator

of closeness with outsiders is the reputation individuals have for knowledge of foreign ways. No one can possibly learn about how "civilized" people behave without first coming to know specific outside individuals who can show them Brazilian cities and explain "civilized" customs. Knowledge of civilized ways, then, is a good measure of one's closeness to outsiders. By this measure, the chief's descendants rate far higher than other Mekranoti males as culture brokers ( $r=.50$ ,  $p < .001$ ).

#### SORTING OUT VARIABLES

A summary of the potential intervening variables between "descendance from the chief" and "influence" is shown in table 8.1. The many correlations might lead some readers to conclude that several factors can account for the greater influence of the chief's descendants. But, as in earlier chapters, such a conclusion would be premature. There are many causal orderings that are possible with the intercorrelations in each triad of variables: "influence," "descendance from the chief," and "x" (the proposed intervening variable). For "x" to intervene between the other two variables, it should correlate with "descendance from the chief" and with "influence" better than these two variables correlate with each other. That is, the correlation coefficients should

TABLE 8.1

DESCENDANCE FROM THE CHIEF, INFLUENCE  
AND DIFFERENT VARIABLES  
(MALES)

	Descendance from the Chief	Influence
Reputation for Generosity	.12	.53***
Number of Conversational Friends	.20+	.45***
Number of Brothers	.65***	.44***
Role as Haranguer	-.11 <sup>a</sup>	.45***
Role as Shaman	-.17 <sup>b</sup>	.28*
Warrior	.26*	.59***
Craftsman	.19+	.64***
Hunter	.39***	.34**
Knowledge of Ancestors	.16	.60***
Knowledge of Ceremonies	.39***	.71***
Knowledge of Indians (general)	.02	.55***
Ambition	.52***	.54***
Aggressiveness	.26*	.48***
Height	.23*	.41***
Intelligence	.48*	.63***
Knowledge of Civilized Ways	.50***	.66***

+p < .10, \*p < .05, \*\*p < .01, \*\*\*p < .001

<sup>a</sup> Both variables are dichotomous,  $\phi = -.11$ ,  $x^2 = .7$ , n.s.

<sup>b</sup> Both variables are dichotomous,  $\phi = -.17$ , Yates corrected  $x^2 = .74$ , n.s.

be higher than .46 ( $r=.46$  between descentance from the chief and influence). Otherwise, other causal schemes make more sense.

Many of the variables in table 8.1 are not as closely related to descentance from the chief as is influence. This suggests that these variables are related to influence independently of descentance from the chief. Diagrammatically, either descentance from the chief  $\rightarrow$  influence  $\rightarrow$  x, or descentance from the chief  $\rightarrow$  influence  $\leftarrow$  x. In both causal schemes, x is related to descentance from the chief only via influence. The following variables conform to this model: generosity, friends, a role as haranguer, a role as shaman, warrior status, craftsman status, knowledge about ancestors, knowledge about ceremonies, general knowledge, aggressiveness, and height.

Other variables in table 8.1 are closely related to "descentance from the chief," but are not closely related to "influence." These variables are most likely related to influence only indirectly, via their relationship to "descentance from the chief." Diagrammatically, either  $x \leftarrow$  descentance from the chief  $\rightarrow$  influence, or  $x \leftrightarrow$  descentance from the chief  $\rightarrow$  influence. The variables, "brothers" and "hunter" fit these schemes.

Only ambition, intelligence, and knowledge of civilized ways correlate well with both descentance from

the chief and influence. These variables, alone, meet the more rigid criterion for an intervening variable, of correlations higher than .46. Thus, these three variables are the ones best able to account for the leadership advantage of the chief's descendants.\* But which of these three variables is of most importance? To answer this question a path analysis is necessary.

The path diagram in figure 8.1 places these three variables as intervening between "descendance from the chief" and "influence." The regression coefficients leading into influence show the independent effects of each variable on influence while controlling for all of the rest. Knowledge of civilized ways is the most important predictor of leadership--followed by intelligence, ambition, and finally, descendance from the chief. When controlling for the other variables, only knowledge of civilized ways is significantly related to influence ( $F= 6.1, p < .05$ ).

Table 8.2 breaks down the original relationship between "descendance from the chief" and "influence" into its various paths. About 40 percent (.18 out of .46) of the original relationship is accounted for by

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\*Analysis of partial correlations leads one to the same conclusions about which variables intervene between descendance from the chief and influence (see appendix 7).

FIGURE 8.1

PATH ANALYSIS OF INFLUENCE  
AND DESCENDANCE FROM THE CHIEF  
(MALES)

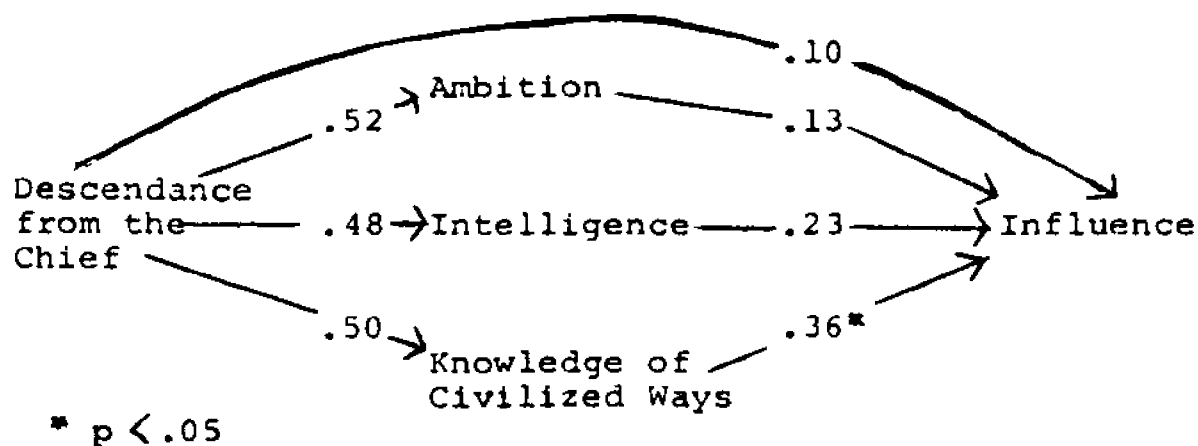


TABLE 8.2

BREAKDOWN OF PATHS BETWEEN  
DESCENDANCE FROM THE CHIEF  
AND INFLUENCE

Original Correlation	.46
Direct Path	.10
Indirect Paths via:	
Ambition	.07
Intelligence	.11
Knowledge of Civilized Ways	.18

the path through "knowledge of civilized ways." Another 24 percent (.11 out of .46) is accounted for by "intelligence," and 15 percent (.07 out of .46) by "ambition." This still leaves about 21 percent (.10 out of .46) of the original relationship unexplained.

These control analyses reveal "knowledge of civilized ways" as the best explanation for Mekranoti leadership inheritance. What does this say about ranking in Mekranoti society? What are the implications for cross-cultural variation?

#### LEADERSHIP INHERITANCE AND CONTACT WITH OUTSIDERS

One of the factors that emerged as most important in accounting for leadership inheritance among the Mekranoti was contact with outsiders. The especially close relationship between the missionaries and the chief's sons is clear to anyone who has spent some time in the Mekranoti village. Of the chief's five sons, three, Bepkum, Bötire, and Kokomati, have served (or are presently serving) as major informants to the missionaries. There are only two other people who are as close to the missionaries as these descendants of the chief. (One is Pykatire, the only Portuguese speaker, and the other is Ajō, a particularly devout convert to the Mekranoti brand of American Protestantism.)

It is interesting that it is the chief's sons who have become the closest friends to the missionaries. There was probably no deliberate planning on either the part of the missionaries or the Indians for ties to be built up in this way. I suspect that the missionaries, having found it necessary to work through the village chief, also found it convenient to deal with his sons. In this way, the chief could not complain that he was being shortchanged in the missionaries' dealings with the village. At the same time, the missionaries could count on reliable informants.

The FUNAI officials in the village are also close to the chief's sons. In this case, it is Kute'ê, Nikã'iti, and now Kokomati, who are most closely allied to FUNAI. The Indians sometimes speak of a division of duties towards the "foreigners" who visit their village. Some Indians consider themselves providers for FUNAI, while others concentrate on helping the S.I.L. missionaries. From the Indian's point of view, the division is a question of convenience. It is easier to limit dealings with one set of foreigners. In this way, friendlier ties can be built up with the outsiders. This makes occasional "free" gifts of Western goods more likely, since the "foreigners" also like to maintain secure loyalties. This tendency of the Indians to concentrate their interactions on one set

of foreigners is consistent with the argument laid out above about why knowledge of civilized ways best accounts for the leadership advantage of the chief's sons. Apparently, there is some value in maintaining solid ties with a few people rather than attempting to spread out one's dealings with a broader network of outsiders.

The problems involved in relying on a culture-broker who is not also a member of a larger family that one can plug into is illustrated with the case of Pykatire, the only Portuguese speaker. Every non-Kayapó who stays very long in the Mekranoti village must depend to some extent on Pykatire. He is the one who translates for outsiders who want to talk with the Mekranoti; he also serves as a teacher for anyone wanting to learn the rudiments of the Kayapó language. (He is quite good at this.) His knowledge of Portuguese necessarily makes him an important Mekranoti individual. But his prestigious position is not without its problems. Pykatire often takes off for the forest to hunt at the very moments when he is most needed-- e.g., when the FUNAI travelling medical team arrives in the village, or when a load of Western goods are brought into the village to be distributed to the people who have requested them in payment for Brazil nut gathering.

Part of Pykatire's problem lies in his lack of relatives in the village. People are not always sure they can trust him, sometimes seeing him as siding with the outsiders against them. The Mekranoti sometimes complained to me that I was talking too much to Pykatire, and not enough to the others, who also wanted to be interviewed. For a time Pykatire avoided me in order not to give the impression that we had become too close. But, when Bepkum or Bötire act as go-betweens (as they sometimes do when people deal with the missionaries), there is little suspicion about their motives. Bepkum and Bötire belong to a large family, making their commitments to the Mekranoti village stronger and clearer than in the case of Pykatire. Thus, there may be good reasons for an outsider to try to tie into a family, rather than depend on a single individual. Problems of establishing mutual trust are greatly lessened with a family.\*

The importance of knowledge of civilized ways also has important implications for social change among the Mekranoti. The value of ceremonial knowledge

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\*Pykatire may also have problems because of his reputation as a "Don Juan" in the village. But this cannot be the major reason for his troubles. Bötire is also considered a "Don Juan" but has no trouble.

(see chapter 6) may decrease as the Mekranoti turn to the Brazilian market to meet more of their needs, and to orient their own activities. People may begin to place more and more value on understanding how Brazilian society works--especially as it involves trade with the Indians. Already discussions in the men's house sometimes turn to analyses of Brazilian society. I heard debates on such topics as the inflation of the Brazilian cruzeiro and the rising price of petroleum products as they relate to dwindling supplies. These aspects of Brazilian society have direct effects on what the Indians can buy, and are understandable on an intuitive basis. Although they do not yet understand why the price of Brazil nuts varies from year to year, the Mekranoti do recognize the nature of the fluctuating market. These discussions about Brazil were not limited exclusively to meetings in the men's house (although they are most often discussed here). While people were living "in the open air" on trek, it was possible for me to overhear some of the nighttime conversations from the domestic houses (which on trek can bring a whole village into the discussion). I remember one time how Bepkum spent an entire evening discussing Western plumbing (including the hazards of poorly maintained toilet facilities on the Brasília-Belém highway). Thus, there is ample indication that the

Mekranoti are beginning to take a keen interest in their place in the broader Brazilian and world society.

Since the chief's sons have greater contact with the outside world than do other Mekranoti, it may seem that leadership inheritance will increase as interest in the outside world increases. But this may not necessarily be the case. If contacts between Mekranoti and Brazilian society expand, this may allow room for other Mekranoti to set up their own personal ties with influential outsiders. The role of "culture-broker" may become less important as more and more Mekranoti become familiar with Brazilian society, thereby obviating the need for someone to act as a go-between. For the moment, however, there are few influential outsiders, and culture-brokers are an important part of Mekranoti life.

#### DISCUSSION AND CONCLUSION

Perhaps the most impressive finding from this review of ranking in Mekranoti society is that many of the most popular arguments about leadership inheritance are not supported by the data. The hypothesis that leadership inheritance results from the redistributive function of the chief received no support at all. This finding is in line with more recent research about ranking in other societies. Sanders and Webster (1978) argue that, in ranked societies in Africa "the

redistributive functions of the chief are minor." And Peebles and Kus (1977) point out that, even in the Polynesian societies discussed by Sahlins (1958) in his original thesis on redistribution and ranking, the chief's redistributive role was highly limited. In fact, only status objects were redistributed by Polynesian chiefs, and these objects went only to people at the top of the social pyramid. The Mekranoti data, in conjunction with these recent studies of ranking in other societies, should serve to warn us against an overemphasis on economic redistribution as the key to the origin of leadership inheritance.

Similarly, the argument about maintenance of allegiances in sedentary societies also received little support. Among the Mekranoti, fathers and sons do not always belong to the same faction, and there is no reason to think that leadership inheritance would lessen factionalism. Cross-culturally, there are numerous records of societies where leadership inheritance actually led to severe factional disputes as brothers or other close relatives vied for power. Burling (1974), himself, gives several examples of such disputes in African societies. Sahlins (1958:146-147) also mentions how warfare between ramares belonging to different factions in Polynesia sometimes resulted in deposition of chiefs.

In contrast to these other views, the factor that best accounted for ranking among the Mekranoti was knowledge of the civilized world. It is interesting to speculate a bit on some of the implications of this finding. First, the importance of the civilized world suggests that ranking is a relatively new phenomenon for the Mekranoti--appearing only after contact. The importance of contact might lead some readers to hypothesize that Mekranoti ranking is a result of the diffusion of Western ideas onto native politics. According to this argument, the Indians simply imitate the class structure they see in the dominant Western culture. I think this argument is implausible. The Mekranoti have not imitated Western society in economic stratification. On the contrary, leaders are poorer than other people among the Mekranoti. If the imitation argument were correct, the Mekranoti should have copied wealth stratification first. Not only is wealth more important than family background in Western society, but it is also more obvious.

A more likely reason for the importance of knowledge of civilized ways in accounting for leadership inheritance, is the argument I laid out earlier in this chapter. I argued that ranking came about among the Mekranoti because foreigners found it convenient to confine their dealings primarily to members of the

same family. As temporary residents in the village, or mere visitors, outsiders could not possibly know everyone well. Thus, they found it easiest to restrict themselves to a few people--a family. Since ties with foreigners were important to the Mekranoti, "culture-brokers" became especially important individuals.

This argument has cross-cultural implications. If it is correct, then ranking should be most likely wherever outsiders have important dealings with a village, but are not able to come to know everyone well. This suggests that ranking would be most common in societies where there are important contacts between different groups, but where factors like distance or hostilities make it impossible for the groups to maintain extensive or lasting ties. In these cases, "culture-brokers" would be needed to mediate between the two groups.

Some of the recent evidence from archeology suggests that the maintenance of alliances between groups may be an important facet of ranked societies. Although arguments do not often stress the role of "culture-brokers" in the development of ranking, evidence is consistent with this view. For example, in his explanation of social differentiation in the early Natufian, Wright (1978:219) argues that alliances between different groups may have functioned to "promote

peaceful incursions over territorial boundaries in order to share resources." He sees these alliances as linking "high status individuals in different local groups." Similarly, Sanders and Price (1968:122), in explaining Mesoamerican ranking, note the importance of trade across "micro-geographical" zones. They also recognize the role of "hereditary merchants" in this trade, but fail to give much attention to these "culture-brokers." Finally, ethnographic evidence on South American chiefdoms also suggests the importance of trade across "micro-environments" (Reichel-Dolmatoff 1978). The role of the "culture-brokers" in this trade is unclear, but Reichel-Dolmatoff (1973:33) does mention that "in many cases wealth--and with it social rank and political control--was based, not so much on surplus food production, stability of food supply, or war horrors, than [sic] on successful trade of such industrial products as gold, cotton cloth, and salt."

All of these findings suggest that a closer investigation of "culture brokers" would be a profitable avenue for future research into the question of ranking. Both archaeological and ethnographic sources can be brought to bear on the topic.

Before concluding this discussion, I should also comment on the other factors that helped account for leadership inheritance among the Mekranoti. In

controlling for "knowledge of civilized ways," regression analysis showed "intelligence" and "ambition" were no longer significant predictors of influence. But, while not reaching statistical significance, the partial regression coefficients for these variables did contribute to accounting for the original relationship between "descendance from the chief" and "influence." It may be useful, then, to consider some of the implications of "intelligence" and "ambition" in leadership inheritance.

At first glance, it might seem that intelligence and ambition would characterize leaders and their offspring in almost all societies. Either through genetic inheritance or through learning from parental caretakers, these characteristics would give the children of leaders a headstart in acquiring leadership traits. This might lead us to postulate some form of leadership inheritance almost everywhere. But further reflection casts doubt on this view.

While cross-cultural similarities in the inheritance of genetic traits from parents are indisputable, some cross-cultural variation may exist in the extent to which learned traits pass from parents to offspring. In societies where children are reared by many different adults, there may be less chance for parents to inculcate their particular traits on their offspring. But where children receive care

primarily from their own parents, there is a greater likelihood that they will adopt their parents' characteristics. In many small societies children may be in great contact with the entire adult community. But in larger villages they may not even know all of the adults. In such societies there is a greater chance for children to develop personalities and cognitive styles more reminiscent of their parents.

The Mekranoti village is fairly large--285 people. The adults do not know the names of all the children, and certainly the young children do not know all of the adults. Under such conditions, the learning of traits like "ambition" or perhaps even "intelligence" from one's parents may be much more pronounced than in smaller societies. Only cross-cultural research on the adoption by children of parental characteristics can resolve this question.

There is one final point that should be made before ending this chapter. The privileged position of the chief's descendants does not imply any economic advantages. Unequal access to prestige and status is not the same as unequal access to material wealth. The next chapter discusses some of the implications of this point.

## CHAPTER 9

## CONCLUSION

This multi-faceted study has a number of implications for leadership in non-stratified society. Besides the questions addressed in earlier chapters, there are also other general points that can be made from the data. I will discuss some of these points presently. But first, a review of the research findings can help refresh the reader's memory about data results.

## SUMMARY OF FINDINGS

In an effort to understand the nature of leadership in Mekranoti society, I attempted to document the social ties and personal characteristics of Mekranoti leaders. The data came from a number of different sources. Besides the censuses and genealogies collected for standard anthropological work, I also gathered other information in order to examine specific hypotheses about leadership. Random samples of individuals were asked to give the names of their peers on questions about personal characteristics. Stories told in response to T.A.T.-like pictures provided information about personality traits. Direct observations of behavior during men's house meetings served to code influence. And random spot observations of individuals throughout the year generated data on the amount of time people spent at various tasks.

After introducing the problem in chapter 1, I turned in chapter 2 to a general description of the Mekranoti-Kayapó, among whom data for this study were collected. Chapter 3 reviewed the ways variables were coded, and outlined the basic research strategy. In chapter 4, I addressed questions about the leadership measures used in this study. Statistical analyses showed inter-correlations of different measures of leadership. The native category for leadership, "benjadjw̃r," correlated significantly with peer reputations of influence for both men and women. In addition, behavioral observations of leadership correlated significantly with both peer ratings of influence and "benjadjw̃r," status. These intercorrelations suggested that different indicators of leadership all measured the same thing. I also examined the relationships among different "types" of leadership and expertise. With few exceptions, all the different "types" of leadership significantly correlated with each other. This was true for both men and women. From this data I concluded that certain Mekranoti individuals (I called them "renaissance men") enjoy a kind of "general" influence.

Chapter 5 documented the social ties and personal characteristics of leaders. Correlations suggested that both social ties (sons, affines, friends, economic

dependents, and influential spouses and parents) as well as personal traits (age, sex, height, intelligence, ambition, aggressiveness, "realistic humility," and various kinds of expertise) all characterized Mekranoti leaders, although some factors were more important than others.

Chapter 6 asked why older people have greater influence than younger people among the Mekranoti. A number of hypotheses were examined in order to discover which variables best "intervened" between age and influence. After comparing the correlations of different variables with both age and influence, I concluded that some factors were more important than others. "Realistic humility," and the number of one's affines, economic dependents or friends did not correlate well enough with both age and influence to act as intervening variables. A path analysis showed that "general knowledge" and "knowledge of ceremonies" best accounted for the relationship between age and influence.

In chapter 7 I looked at male/female differences in influence among the Mekranoti. I began with some of the basic differences between the sexes that might explain a male influence advantage. After documenting sex differences in height, aggressiveness and child-care among the Mekranoti, I noted that it was the male characteristics--tallness, greater aggressiveness,

and fewer child-care burdens--that correlated with greater influence for both men and women. Further statistical analyses were carried out to examine explanations about why height, aggressiveness and child-care might be related to influence. Mekranoti data did not support explanations for why height gives a leadership advantage. Skill in warfare seemed to account for part of the relationship between aggressiveness and influence for males, but comparable data were not available for females. And finally, the difficulty child-caring women have in building up friendships seemed to account only in part for the negative relationship between child-care burdens and influence.

In chapter 8 I examined a number of hypotheses about leadership inheritance. Arguments about economic redistribution and about the avoidance of factionalism were not supported by the data. Correlations and path analysis suggested that knowledge of the civilized world best accounted for the increased influence of the chief's male descendants. I used this finding to support an argument about ranking that emphasizes the desire of outsiders to deal primarily with one family while engaging in trade or other relationships with a foreign village. I suggested that this situation might result in the setting up of a family

of "culture-brokers" who could gain greater influence because of their special ties to the outside world. I briefly reviewed cross-cultural and archaeological data with this hypothesis in mind.

#### KNOWLEDGE AND POWER

Out of all the variables discussed in this study, the factor that emerged as most important to Mekranoti leadership was knowledge. Knowledge (especially knowledge of ceremonies and knowledge of civilized ways) not only correlated better with leadership than did other variables, but it also best accounted for both gerontocracy and informal leadership inheritance among the Mekranoti. Some of the implications of these findings were described in earlier chapters. But it would be useful now to take a broader perspective on the relationship between knowledge and power.

In a recent cross-cultural study of information and power, Wirsing (1973) looked at "hierarchically structured political teams" as an indicator of information control. (He assumed that people at the top levels of decision-making hierarchies had more information at their disposal and more power to control information distribution than anyone else in the society.) Wirsing then found a correlation between the number of "hierarchically structured political teams" and the extent of power concentration in the

top leaders. (Power was measured in terms of control over warfare, adjudication, appointments to lower offices, wealth and labor.) Wirsing concluded from this correlation that power resulted from control over the flow of information in a society.

Unfortunately, Wirsing's measure of information control is extremely indirect (the number of hierarchically structured political teams). It is also difficult to tell from his data just which variable is cause and which effect. Do leaders gain greater military, adjudicatory, appointment and economic powers because they control information? Or are they able to control information because they already possess greater power in these other areas? Also, Wirsing's original correlation may result from the fact that both greater control over information and greater control over executive powers simply reflect a general, overall political complexity. Finally, there are a number of other variables that may account for the original correlation. Sheer community size, for example, would affect both the amount of information to be processed and the numbers of people over which one could exercise power. Wirsing does not control for any of these variables.

Despite these serious shortcomings, Wirsing's study is an important attempt at a cross-cultural understanding of the relationships between information

control and other kinds of political power. The Mekranoti study has some advantages over Wirsing's study. I was able to provide a more direct measure of information (reputations for knowledge), and was able to establish the causal priority of knowledge over power in a more thorough manner (through use of control analyses). But the Mekranoti are only one society, and cross-cultural data are needed to confirm the importance of information control in acquiring and maintaining political power. Perhaps a cross-national look at factors like literacy, communication media, freedom of the press, and other sources of variation in information distribution will shed more light on the effects of information control on other kinds of power.

#### ADDITIONAL IMPLICATIONS OF RESEARCH FINDINGS

There are also many other points that might be drawn from this research. Earlier chapters discussed some of the implications of specific findings concerning gerontocracy, women's status, and leadership inheritance. But, either because they were not directly related to the questions asked in a given chapter, or because they depended on findings from various chapters, many of the implications of this study were left unstated. It is now time to take a look at some of these other questions. I will proceed directly, then, to an

enumeration of some of the additional points that might be drawn from research findings. From there I will continue with suggestions for future research.

1. Leaders in different situations have many characteristics in common. In chapter 4 of this thesis two extreme viewpoints were expressed about the kinds of people who become leaders in different societies. According to one view there are "natural" leaders who rise to leadership positions no matter where they are or what tasks they must perform. In contrast, another argument contends that different kinds of people become leaders in different situations, and that without some knowledge of the kinds of tasks leaders must perform, one cannot predict who will take on a leadership position. Probably neither of these extreme viewpoints is entirely correct; but of the two, the former is more consistent with the Merkanoti data.

First, many of the personal traits that characterize Merkanoti leaders are remarkably similar to the traits of very different kinds of leaders in the United States and elsewhere. Stogdill (1974) reports that in the United States and other places leaders of various kinds are generally more intelligent, more original, more ambitious, and more aggressive than non-leaders.

Chapter 5 showed that these same traits characterize Mekranoti leaders as well. Other non-mental traits are also shared by Mekranoti and United States leaders. In both societies leaders are more popular, older and taller than their followers. This suggests that many of the same traits may be required of leaders in vastly different kinds of societies.

Second, there is evidence from different countries that much the same people hold leadership positions in different domains. Maccoby (1974) argues for the United States that many of the same people occupy leadership positions in both business and government; and Singh (1965) documents a similar overlap of leadership roles in India. By the same token, chapter 4 of this study shows that, to a large extent, it is also the same individuals who receive the highest prestige in widely different areas in Mekranoti society. The men who gain most renown for their hunting ability, craftsmanship, or knowledge also gain renown as speech-givers, shamans, warriors and community leaders. Overall, then, there is evidence from a number of societies that the same people end up on top no matter what kind of leadership is required.

All of this suggests that there may be general personal characteristics that make one suitable for leadership positions in many situations. But this

picture of "natural leadership" should not be exaggerated. None of the findings, for example, suggest that "leaders are born, not made." It is just as possible that leadership traits are learned. In addition, we should not assume that leaders everywhere share these common personality traits to the same degree. For example, Stogdill (1974:48) reports that originality is one of the best predictors of leadership in the United States; but it is only slightly related to leadership among the Mekranoti. Height, on the other hand, is a good predictor of leadership among the Mekranoti, but is less consistent a predictor in the United States (Stogdill 1974:74). Finally, the nature of leadership may be different in different situations. For example, stratified and non-stratified societies may differ in the extent to which purely formal positions carry actual influence. Possibly, stratified societies have more "bureaucratic" positions that carry no real power. Stratified societies may also require more specializations in leadership tasks. Thus, while certain traits may form a common base for leadership almost everywhere, there may also be additional characteristics that are required of leaders in different kinds of societies. As becomes clear in the following points, some important differences can be found between stratified and unstratified leadership.

2. Some of the characteristics that are different for Mekranoti and United States leaders may be explained by the more intimate knowledge Mekranoti individuals have of each other. In the United States a geographically central location for one's home correlates with leadership (Festinger 1950). Laboratory studies demonstrate a similar importance for central locations in communication networks (Stogdill 1974). Among the Mekranoti, however, one's location in the village has little predictive power for leadership (chapter 5). I suggested earlier that location may be unimportant in the Mekranoti case because villagers already know each other so well that such superficial characteristics as where one lives carry little weight in people's evaluations of each other.

A similar argument can be made for the relationship between competition and leadership. Researchers have documented the greater competitiveness of Western-style leaders over leaders of simpler societies (Graves and Graves 1978:123). This finding is confirmed in the lack of competitiveness among Mekranoti leaders (chapter 5). One argument for why complex societies differ from simpler ones on this variable is that competition may serve primarily as a device for sorting people into categories when one is not familiar with them first hand. (In ethological studies ritualized competition is

often a way of establishing a hierarchy in situations where animals are not already sure of who the dominant members of their group are. Thus, competition may also be a way of sorting individuals among animals.) Since the Mekranoti know each other intimately, there is no need for direct competition to be able to distinguish leaders from non-leaders. In this case, competitiveness would serve only to inhibit cooperation, and might not be valued.\*

3. One of the major differences between leadership in stratified and non-stratified societies is the link between wealth and power. This has important implications for the role of monetary incentives in attracting leaders. Porter and Lawler (1968) showed that managers in the United States work most effectively when they see their salary as dependent upon job performance, and they use this data to argue that economic incentives can help encourage better leadership. Matthews (1954), Singh (1965), Warner and Abegglen (1955) and others (Stogdill 1974) all document the connection between wealth and leadership in various stratified societies.

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\*Another argument about competitiveness sees Western cultures as emphasizing competition in order to stimulate excellence which is important in industrial societies. But Graves and Graves (1978) present data to show that excellence does not depend on competitiveness. Nor is there any reason to think that Mekranoti do not also expect excellence of their leaders.

But among the Mekranoti, leaders are, if anything, poorer than their followers. ( $r = -.21$ ,  $p < .05$  between status as a chief and wealth as measured in terms of guns for males. There is no significant difference between chiefs and followers on other material goods.) Yet, many of the same positive traits that characterize leaders in stratified societies continue to characterize leaders among the Mekranoti. Apparently the Mekranoti have been able to encourage similar kinds of people to become leaders by offering only increased prestige as the reward for taking on the burdens of leadership positions. Perhaps it is, in part, because money can "buy" prestige in modern societies that it has become such an important incentive.

4. The failure of wealth to correlate with leadership also has other implications. Many writers assume that inequalities in wealth correspond with inequalities in power. "Money is power" is a popular catch phrase in the United States. In general this assumption seems valid for Western society, but even here caution must be exercised in drawing inferences. B teille (1969), for example, argues that the United States has greater inequalities of wealth than the Soviet Union, but that the Soviet Union has greater inequalities of power. Thus, we cannot assume that inequality in one area correlates perfectly with inequality in another.

The Mekranoti data clarified this point. Not only did wealth not correlate with leadership, but other economic indicators also failed to account for much of the variation in leadership acquisition. "Contribution to subsistence," and "generosity" (taken as an indicator of one's role as an economic provider) did not correlate with leadership as well as other non-economic variables. None of the economic factors could account for the leadership advantages of older people, men, or members of the chief's family. In all, then, there is good reason to make the important distinction between inequality of influence and inequality of wealth.

One of the areas where a confusion between these different kinds of inequality is particularly widespread is in the study of sex roles. Many writers (Sanday 1974; Leacock 1978; Friedl 1978) argue that if women lack access to the basic sources of wealth in a society, that they will also have lower prestige and more restricted power. But Whyte's (1978) cross-cultural tests demonstrate that access to wealth does not correspond to influence. For example, knowing how much of the subsistence in a particular culture is produced by women will not help us predict the sex of local political leaders (Whyte 1978:96). This study supports some of these same conclusions about women's status among the Mekranoti. Factors like

"contribution to subsistence" and "material wealth" have little to do with a woman's influence. It seems that greater influence does not always depend on greater control over economic resources.

In future theory and research authors should clarify what kinds of inequalities they are interested in explaining. While there may, in many cases, be a relationship between inequality of influence and inequality of wealth, this relationship cannot be assumed at the outset.

5. Another important distinction is also brought out in the Mekranoti data. This is the distinction between inequality of opportunity and absolute inequality. The Mekranoti have very few absolute differences in influence. Leaders are limited to giving informal advice. No one can give direct orders, and no one is obligated to obey the suggestions of others. If anyone is unsatisfied with the political situation, there is always the option of taking off to the forest to live on one's own.

Yet coupled with this relative equality in absolute influence there are distinct inequalities in political opportunity. The chief's sons and grandson have significant advantages in acquiring leadership positions. In fact, the correlation of .46 between influence reputation and descendance from the chief suggests less "social mobility" among the Mekranoti

than among other societies characterized by greater absolute inequalities. For example, in one cross-cultural comparison of social mobility, Kelley (1978) gives a correlation of .27 between father's occupation and son's occupation among the Toro. An African "cattle" culture, the Toro have distinct inequalities in occupation and wealth. Kelley's figure for Panamá is .37 and for the United States, .41. These figures are not strictly comparable to the Mekranoti data since Kelley is comparing occupational statuses, measured in different ways, but the measures are similar enough to give some idea of the problem of confusing inequality of opportunity with absolute inequality. It seems clear that the Mekranoti have a fairly high degree of unequal opportunity, while still retaining minimal absolute differences in power.

The failure to clearly distinguish between these two types of inequality has led to some serious confusions in the anthropological literature. In discussing cultural evolution, for example, anthropologists are not very clear about whether they want to explain how access to wealth or power changes; or how absolute inequalities change. In arguments about ranking anthropologists do not clarify whether they want to explain why leadership is inherited, or why power becomes concentrated in a few individuals.

This confusion raises basic issues about evolutionary typologies. The placement of "ranked" society as an evolutionary stage may depend on whether "ranking" is defined in terms of leadership inheritance or in terms of power concentration. Chapter 8 argued that contacts with foreign groups may encourage leadership inheritance by making families of "culture brokers" important in cooperation between societies. This is consistent with theories about cultural evolution that see increasing trade or other communication between societies as a principal reason for the evolution of "ranking." Archeological studies may yet confirm this evolutionary sequence. But some caution should be observed in assuming leadership inheritance to be a later factor in cultural evolution. Some of the societies that have been used to "represent" earlier stages in evolution have also been characterized by leadership inheritance (e.g., !Kung--Thomas 1959:183; Sirionó--Holmberg 1969:46).

I suspect that many writers are really concerned primarily with the concentration of power in a few individuals. It may be this increase in absolute inequality of power that is the most prevalent change in political evolution. Future research might attempt to code leadership cross-culturally by using the criterion of power concentration, rather than leadership inheritance. Coding may be more difficult because of the lack of

behavioral studies of leadership, but an attempt might be made.

This distinction between absolute inequality and inequality of opportunity is also important in issues concerning contemporary United States. In one well-known study, Christopher Jencks (1972) argues that the United States is characterized by greater equality of opportunity than most people realize, but that absolute inequalities are enormous. He points out that sons of the wealthiest fifth of the population earn an average of 75 percent more than sons of the poorest fifth. This shows a substantial inequality of economic opportunity stemming from family backgrounds. But it pales in comparison with absolute differences in income. The earnings of the richest fifth are more than 650 percent greater than the earnings of the poorest fifth (Jencks 1972:214-215). Jencks uses these figures to argue that the United States cannot reduce inequality by simply reducing inequality of opportunity. Absolute inequality must be attacked directly.

Distinguishing between different types of inequality, then, has practical as well as theoretical importance. Anthropologists would do well to avoid confusing the two concepts.

## SOME SUGGESTIONS FOR FUTURE RESEARCH

Specific recommendations for future research have been offered at various points throughout this thesis. I will now try to summarize some of the major suggestions.

First, a number of cross-cultural studies might be carried out. Among the Mekranoti the accumulation of knowledge was an important factor in explaining how elders maintain their leadership advantage. Studies of gerontocracy might examine the relationship between the obsolescence of knowledge and the prestige of elders. Presumably, where societies are undergoing rapid change, the experience of elders would not be as important as in societies where older forms of knowledge remain relevant. The Mekranoti data also revealed that it was knowledge of ceremonies in particular that was mainly responsible for the greater prestige of elders. Perhaps societies that use complex ceremonies to regulate environmental and social relations are more apt to give prestige to older people.

In studies of cross-cultural variation in sex roles more thought could be given to the role of child-care in detracting from a woman's influence. The Mekranoti data confirmed a relationship between these two variables. Perhaps the relative amount of time men and women spend on child-care affects the balance of power between the sexes. Also, the overall amount of time women must

spend caring for children may account for some of the cross-cultural differences in women's status. Where women have few children, their influence might be greater. Finally, a more careful examination of the reasons why child-care detracts from influence might be undertaken. A loss in the number of one's friends accounted for some of the lower influence of child-caring Mekranoti women, but only a small portion of the relationship between child-care and influence could be explained in this way. Evidently, there are other reasons why child-care takes away from a woman's status.

Another area where research into sex roles may be profitable concerns the effect of height on influence. Among the Mekranoti height was fairly strongly correlated with influence for both men and women. Just why this should be so is unclear. None of the explanations examined in this study could account for the greater influence of tall people. But even without figuring out why height gives a greater influence advantage, researchers might still look to see whether the average difference in height between the sexes in different societies is related to variation in women's status. Presumably, where sex differences in stature are most pronounced, women's influence will be lowest.

Finally, cross-cultural studies might also look into questions about "ranking." With regard to

leadership inheritance one question concerns the effect of contact between societies. The present study showed that much of the leadership inheritance among the Mekranoti could be explained by the knowledge the descendants of the chief had of outsiders. Perhaps it is in areas where "culture brokers" must mediate intersociety contacts that leadership inheritance is most important. Just what kinds of intersociety contacts result in the use of "culture brokers" is unclear. But presumably, it is where limited, but important, contact takes place between groups of people that the use of culture brokers would be most effective. Where contacts are unimportant there is no need for societies to communicate with each other; and where contact is extensive many people can become acquainted with each other, obviating the need to use the services of "culture-brokers." Perhaps factors like trade over long distances are most conducive to "culture-broker" arrangements for intersociety communication. Cross-cultural studies might look into some of these factors in attempting to account for leadership inheritance.

Another aspect of "ranking" that should be examined is the concentration of power in a few individuals. Under what conditions do absolute inequalities in power arise? Although the redistribution hypothesis did not do well in accounting for leadership inheritance among the Mekranoti, it might fare better in explaining

power concentration. But, in any case, research into the effects of information control should also be carried out.

All of these projects for cross-cultural research are possible, but there may be many problems in acquiring the necessary information from published sources. Especially in the case of simpler societies, the literature on leadership is difficult to interpret. Cross-cultural coders must depend on anecdotal references to the behavior of leaders in simpler societies. This data may not be very reliable.

It is perhaps through more detailed studies in specific societies that most progress can be made. Especially in simpler societies, where documentation is least adequate, research might concentrate on quantifying various aspects of leadership and other relevant variables. Besides replicating this study (and thus providing a better comparative base for analysis), future research can also address new questions. Deciphering the relationships between absolute inequalities and inequalities of opportunity is one important project. Accounting for differences in the ways leaders of different societies come to power is another. The field is wide open for systematic studies of leadership and politics in the simplest of human societies.

Continued research into leadership is a worthy project. Politics vary tremendously from society to society. Leaders may wield tremendous power, or they may be "just one of the guys (or gals)." They may oppress their followers, or they may enhance prosperity. They may be hated tyrants, or respected advisors. Understanding why leadership differs is important to the well-being of all humankind.

APPENDIX 1  
 QUESTIONS ASKED OF PEER-GROUPS

Variable	Question Asked
Influence	Whose advice (orders, suggestions do you (Indians) follow in doing Indian things?
Intelligence	Who is smart?
Culture-Mediator	Whose advice (orders, suggestions) do you (Indians) follow in doing things for civilized people?
Aggression	Who is "fierce?"
Generosity	Who is generous?
Good Looks	Who is good-looking (face and body)?
Knowledge of Indian Ways	Who knows Indian things well?
Knowledge of Civilized Ways	Who knows civilized things well?
Knowledge of Ceremonies	Who knows ceremonies well?
Knowledge of Ancestors	Who knows the ancestors well?
Warrior	Who kills (has killed) enemies well?
Hunter	Who kills game well?
Craftsman	Who makes things well?
Painter	Who paints people well?

APPENDIX 2  
 PROTOCOLS FOR TIME ALLOCATION STUDIES

Code book for Time Allocation

Var. #	Variable description	Column #
1	I.D. of Household visited	1,2
2	Day	3,4
3	Month	5,6
4	Year	7,8
5	Time	9,10,11,12
6	weather R = Raining S = Sunny C = Cloudy	13
7	Individual's Household #	14,15
8	Individual's I.D. # within household	16,17
9	MainActivity of individual (Major category)* G = garden labor W = Wild product M = Manufacture and upkeep L = Labor for sale C = Child care F = Food preparation S = School H = Personal hygiene E = Eating R = Recreation (Ceremony or sport where all are involved) I = Idleness K = Keeping house T = Transport D = Domestic animal care X = other	18
10	Main Activity of individual (Sub-categories) G B = Burning C = Cutting down F = Fencing P = Planting J = Soil Preparation W = weeding H = Harvesting X = Other	

\*Give preference to subsistence activity when a decision about what is actually being done is made

-2-

Codebook for time allocation  
(continued)

- # P = Fishing  
H = Hunting  
V = Vegetable foods (no weapons)  
N = Non-food product  
  
X = other
- M A = Artifacts for sale or trade  
H = House-building  
T = Tool-making (local use)  
V = Vestments  
F = Furnishings for household  
C = Ceremonial objects (no other use)  
  
X = other
- L G = Guards  
F = Fazenda work  
C = work for resident civilizados (miss., FICAI, Atch.  
M = Mining  
  
X = other
- C N = Nursing  
F = Feeding  
H = Hygiene for child  
P = Playing  
I = Instruction (other than toilet)  
M = Mandas (Demands, reprimands, commands)  
S = Striking, spanking, smacking, slapping  
C = Calming down (or putting to sleep)  
  
X = Other
- F C = cooking  
M = Manioc processing  
V = Processing Vegetable products (not manioc)  
A = Processing Animal food (not fish)  
F = Processing fish  
  
X = other
- S S = Schoolwork done at school  
H = Homework from school  
  
X = other
- H B = bathing  
E = Clamnation  
G = Grooming (other people)  
P = Preening (oneself)  
  
X = Other
- E N = Nursing (for child)  
A = Animal food (included in meal or snack)  
V = Vegetable food only in meal or snack  
  
X = other

-3-

(Codebook for time  
allocation--continued)

- R\* L = Jog-riding  
 F = Futbol (only if all involved)  
 O = Crating  
 D = Dancing  
 S = Singing  
 W = Wrestling  
 A = Arrow shooting  
 X = other
- I\* S = Sleeping  
 D = Discussion/Debate  
 P = Play (everyone not involved)  
 C = Coital activity  
 F = Fighting (Physical)  
 X = other
- K W = Washing clothes  
 D = Dishwashing  
 S = Sweeping  
 P = Putting things away  
 F = Fire-tending  
 X = other
- T W = water carrying  
 F = Firewood carrying  
 A = Animal carrying (Land animals)  
 R = River animal carrying  
 V = Vegetable product carrying  
 X = other
- D B = Bovines  
 C = Chickens  
 P = Pigs  
 D = Dogs  
 X = other

\*There may be some difficulty determining whether certain activities fit under an R subcategory or an I subcategory. The general difference intended is that R should include only ceremonial-type activities, while I includes unscheduled activities done just for the fun of it or for lack of anything better to do.

-4-

(Codebook for time  
allocation--continued)

11	Main activity (Sub-sub category)	20
	Ad Lib. BUT:	
	GC T = Cutting big trees U = Cutting underbrush	
	RS S = Spectator P = Participant	
	RD Ditto	
	RF Ditto	
	RL Ditto	
12	Is this activity being performed alone or jointly with others?	21
	A = Alone J = Jointly with others	
13	Minor activity (Main Category) (see # 9 above)	22
14	Minor activity (Sub-category) (see # 10 above)	23
15	Minor Activity (Sub-sub category) (see # 11 above)	24
16	Is this activity being performed alone or with others?	25
	A = Alone J = Jointly with others	
17	Is Main activity being observed or reported?	26
	O = Observed R = Reported	
18	If visiting out, who is being visited?	27-30
	(If only the household is known and not the specific individual in that household, fill in just the first two columns to identify the household. If a specific individual is being visited, then fill-in all four columns.)	
19	treking T = treke observation	31
20	people away from village overnight A = away and unobservable	32

SAMPLE TIME ALLOCATION FORM

WERHANOTI 612 W F

1st Activity 2nd Activity  
 ACT SUB S/S A ACT SUB S/S A  
 ACT ACT L N ? OBS VISITING WHOM ?

MS ID DAY MONTH YEAR TIME H  
 30 24 05 77 1245 C

MS	ID	DAY	MONTH	YEAR	TIME	H	MS	ID	IND	ID	ACT	SUB	S/S	A	ACT	SUB	S/S	A	OBS	VISITING	WHOM ?	
A							12	07			FC											
B								08			WH											
C								32			IP											
D								34			IP											
E								31			IP											
F																						
G																						
H																						
I																						
J																						
K																						
L																						
M																						
N																						
O																						
P																						
Q																						

at Ki Ngunkajit  
 got 2 ton (Carmelillo) O's  
 Lodge  
 Ba'i  
 Ngwiso

All meat goes to Krause mex's  
 hi

T  
 ↓  
 ↓  
 ↓

## APPENDIX 3

## T.A.T.'S

## SAMPLE T.A.T. STORY

1. He's running because he's afraid of an animal-- of a jaguar. He runs and then, far away, climbs a tree. The jaguar goes after a lot of people. And to get away from it, people run around a tree. Then the jaguar goes after someone else. The jaguar grabs arrows from him, and then grabs his bow, and then breaks the arrows. Then another time the jaguar lies in wait for people. At another time it waits for people on a tree limb. It jumps from up there and takes the Indian's arrows. It takes the Indian's club, and kills the Indian's pets. Then the jaguar kills an animal and lays it down (covering it with leaves) and runs after people. The people kill the jaguar. Some jaguars go after people, and the people shoot their arrows (without killing). Some people kill the jaguar, and some get scared and run, and climb trees and shout for help. Some people come; they go; and then return together. (a) Maybe he's scared of a jaguar.

2. They are drawing the bowstring because they are running toward each other and will shoot the arrows. They shoot arrows at each other. They are (as enemies) waiting to shoot arrows. For this they are pulling the bow. For this they throw the arrows, and cut them, and wrap on the points. For this they've wrapped the spare string on the bow, For this you see them against trees to hide. People kill each other with arrows. They kill their enemies with arrows. For this you see them pulling the bow, and placing the arrow well. (a) For people to kill enemies. They are like that. ~~He's~~ He's pulled the bowstring and then put his arm against his forehead like this (gesture) to send the arrow flying.

3. He's taken the club and pressed the end of it into his stomach (gesture) for a club fight. Then people club each other, and then run toward each other. Then someone says to them to stop. The chief tells them to stop and gets in between them to separate them. He's there with the club pressed into his stomach. (a) So they almost got to each other. But nothing came of it. And then someone told him to stop. So he's there with the club pressed into his stomach.

4. They are painting themselves standing there. See how they are, putting the genipap dye across

their cheeks and that one and that one are seated. And that one, standing, is painting herself on the cheeks with genipap. Those two women seated have just had babies, and so are not having sex, and that one--the old one standing--is applying genipap to her cheeks, and the ones seated get up and paint themselves. They make genipap dye and paint themselves. (a) She is painting herself, and while the others sit, that one says "Get up--Let's paint ourselves for a ceremony." That's what she tells them, standing there.

5. She cooked some food and took it to them for them to eat. They took it, and that child at the side asked in vain for some. The adult there stooped over and handed them some, and the children, one in back of the other, are holding on--One is holding on to the plate, the other is holding on to the child in front. The one behind cannot get the food. He asked in vain for them to put the plate on the ground so both could eat. (a) Maybe because they're hungry. They are crying and so the one standing wants to give two different plates for them, but she just hands one plate. So the kids hold on, and that child is eating; but the boy there can't get a hold of the plate.

INSTRUCTIONS FOR CODING THE T.A.T. STORIES  
(AS GIVEN TO SECOND CODER)

Here is the code sheet for the T.A.T. stories. I am basically interested in a content analysis. I have decided to break things up into "details." Of course deciding what constitutes a detail is a bit ambiguous. Nevertheless, I hope that variations in originality of detail, sex identity, etc. will be reflected in the test scores.

Most of the items mentioned can be coded with either M, F, N, or K. More than one of these codes could be placed on any given line. M stands for male; F for female, N for sex unknown or ambiguous; and K for child (sex not specified. Code Male children as KM and female children as KF.) These codes apply to the agent of the action, or, in the case of descriptive codes, to the object being described. I have made no provision for repeated actions, so the final tabulations reflect the number of different details mentioned in the story rather than the total number of details, per se.

For some categories I have arranged codes heirarchically. "Runs after," for example, includes a number of sub-codes--"runs after game," "runs after an enemy," and "runs after other." In these cases the main heading always receives a code letter whenever the sub-categories receive them. If a man runs after an animal (coded "M") and if a woman runs after her kids (coded "F" on the "other" line), then the "runs after"

category would receive both an "M" and an "F" code. If an Indian said a character in the story was running after something, but did not specify what, then simply code the main category.

Other main categories--Game," "Wild product," "Garden produce/food," "Festival Names," "Kin terms," and "Western Goods"--should receive number codes reflecting the total number of sub-categories mentioned.

I have tried to account for most of the "details" you will find in the stories, but most T.A.T.'s also have additional information which merits separate coding. The lines at the end provide for the adding of unaccounted "details." The decision about whether to code some information as a new and separate detail is often ambiguous. I simply hope that the "details" already mentioned give you an idea of what kinds of information should be coded. Don't fret over this.

While the final tabulations of "originality," and "sex identity" will reflect overall codes, there are some additional codes such as "passivity" which will reflect specific items. I ask you to be especially careful about coding the following: "runs away," "runs after," "runs in competition," "shoots/kills in competition," "gets killed" "traditional harangue," "gives Christian harangue," "fails at something,"

"traditional spirits," "Christian spirits," and "angry."  
Also try to be careful about coding items done for children.

The two first lines are for coding variables relating to the test situation rather than to content. The codes, "\*" "(a)" and "%/" are my prompts to get people to talk. Simply add up the number of times these prompts appear in the story. Circle the number that reflects the length of the story. "Understanding of task" and "verbal skill" are rather subjective impressions you get after reading the stories. One of the major factors to think about in coding for understanding of tasks is the relationship between the story and picture described. Sometimes people came in with stories already prepared to tell me. (They talked among themselves about what to tell the anthropologist). Some of them didn't even want to look at the pictures, but began a story immediately (usually a very stereotyped story, of course)--often about the wrong picture. When you see that someone is obviously talking about the wrong picture, you have a good basis for coding understanding of tasks as poor. Because of translation problems "verbal skill" may also be a bit difficult to code properly. Basically, look at the organization. Are ideas linked in some logical sequence--either as units in time or as alternate possible interpretations, or are details very unconnected?

For the "kin terms" question, most of the letters refer to standard anthropological categories. The following, however, are different: N=MB, MF, FF; K=FZ, FM, MM; T=Niece, nephew, or grandchild; J=ceremonial friends. This reflects the Kayapó kinship terminology.

There are also other translation problems: Macaw=arara, Kayapó uses the same word for animal and for meat. I translated sometimes as meat, sometimes as animal, and sometimes as game. There are about 12 different words for drawing the bow, shooting, etc. I'm not very careful about finding English glosses. The progressive tense in Kayapó requires that one specify whether the actor(s) is (are) sitting, standing, lying down, or moving. This usually appears in the stories as "standing there," "while sitting down," etc. It is really rather incidental whether actors are in any given position. Ignore these "details" when doing the coding. Verb tenses in Kayapó are also not always clear (they do not appear in the verb itself). It is usually clear when something is in future tense, but distinguishing the past from the present is sometimes ambiguous. Stories also do not always make it clear just which sex, or how many people are involved. Kayapó third person pronouns do not distinguish sex and number. Finally, I was not always sure or careful about where one sentence ended and another began. You may find some strange phrases here and there.

The pictures used and questions asked for each picture (indicated by (a)) are given below:

1. A man running. "Why is this person running?"
2. A man shooting a bow and arrow. "Why has this person drawn the bow?"
3. One man standing (holding a club) and two men seated (backs to camera) in front of the standing man. "Why is that person talking there?"
4. One woman standing, two women seated beside her. "Why is that woman standing there and those two women seated there?"
5. A woman holding a plate for two kids (one in back of the other). "Why is that person giving the kids there something in the plate?"

SAMPLE T.A.T. CODE SHEET

2.1 1504  
 How many? \* 0 (a) 5 \* 1 Length (in pages) 1/2, 3/4, 1, 1 1/4, 1 1/2, 1 3/4, 2  
 Understanding of task: poor Medium good Verbal skill low, 1, 2, 3, 4, 5 high

What is mentioned?

traditional spirits \_\_\_\_\_  
 Christian spirits \_\_\_\_\_  
 ancestors \_\_\_\_\_  
 relatives \_\_\_\_\_  
 non-Kayapó Indians \_\_\_\_\_  
 civilized people \_\_\_\_\_

legs apart \_\_\_\_\_  
 leg folded \_\_\_\_\_  
 feet \_\_\_\_\_  
 body bent \_\_\_\_\_  
 body stooping \_\_\_\_\_  
 hand under armpit \_\_\_\_\_  
 arms against side \_\_\_\_\_  
 hand stretched out \_\_\_\_\_  
 hair tied \_\_\_\_\_  
 hair cut \_\_\_\_\_  
 hair other \_\_\_\_\_  
 clothes \_\_\_\_\_  
 body paint M F  
 ornaments \_\_\_\_\_  
 Holding, using?  
 club N M  
 bow N  
 arrow N  
 stick \_\_\_\_\_  
 plate R K M  
 basket \_\_\_\_\_  
 gun \_\_\_\_\_  
 hoe \_\_\_\_\_  
 person K  
 self \_\_\_\_\_  
 ax \_\_\_\_\_

Western goods \_\_\_\_\_  
 west clothes \_\_\_\_\_  
 hammock \_\_\_\_\_  
 pots/pans \_\_\_\_\_  
 spoon \_\_\_\_\_  
 dish \_\_\_\_\_  
 other \_\_\_\_\_

runs after \_\_\_\_\_  
 game \_\_\_\_\_  
 enemy \_\_\_\_\_  
 other \_\_\_\_\_  
 runs away from M  
 animal M  
 someone \_\_\_\_\_  
 other \_\_\_\_\_  
 shoots/kills N N  
 game N  
 fish \_\_\_\_\_  
 someone N  
 in competition \_\_\_\_\_  
 fish poison \_\_\_\_\_  
 fish (hook & line) \_\_\_\_\_  
 stands at dam \_\_\_\_\_  
 runs in competition \_\_\_\_\_  
 gets killed by someone \_\_\_\_\_  
 gets killed by other N  
 dies from illness \_\_\_\_\_  
 gets into physical fight M  
 gets into verbal fight \_\_\_\_\_  
 lies in hiding \_\_\_\_\_  
 hunts with dogs \_\_\_\_\_  
 ties up catch \_\_\_\_\_  
 brings catch to village \_\_\_\_\_  
 throws down catch \_\_\_\_\_  
 butchers catch \_\_\_\_\_

dismantles oven \_\_\_\_\_  
 takes off fire \_\_\_\_\_  
 uses banana leaves \_\_\_\_\_  
 covers with dirt \_\_\_\_\_  
 unfolds meat pie \_\_\_\_\_  
 asks for food/water X  
 gives food/water to adult \_\_\_\_\_  
 eats X  
 drinks \_\_\_\_\_  
 sleeps \_\_\_\_\_  
 rests \_\_\_\_\_  
 urinate/defecate \_\_\_\_\_  
 cry K  
 talks about extramarital affair \_\_\_\_\_  
 gives traditional harangue \_\_\_\_\_  
 gives Christian harangue \_\_\_\_\_  
 invites to go gardening/gathering \_\_\_\_\_  
 gives birth \_\_\_\_\_  
 fails at something N  
 dances/sings \_\_\_\_\_  
 buries dead \_\_\_\_\_  
 afraid M  
 good \_\_\_\_\_  
 bad \_\_\_\_\_  
 generous \_\_\_\_\_  
 angry \_\_\_\_\_  
 stupid \_\_\_\_\_  
 lazy \_\_\_\_\_  
 hard-working \_\_\_\_\_  
 shameless \_\_\_\_\_  
 respectful (shameful) \_\_\_\_\_  
 curious \_\_\_\_\_  
 hungry K  
 sick \_\_\_\_\_  
 worried about kids \_\_\_\_\_  
 sad \_\_\_\_\_  
 other \_\_\_\_\_

## SAMPLE T.A.T. CODE SHEET

(CONTINUED)

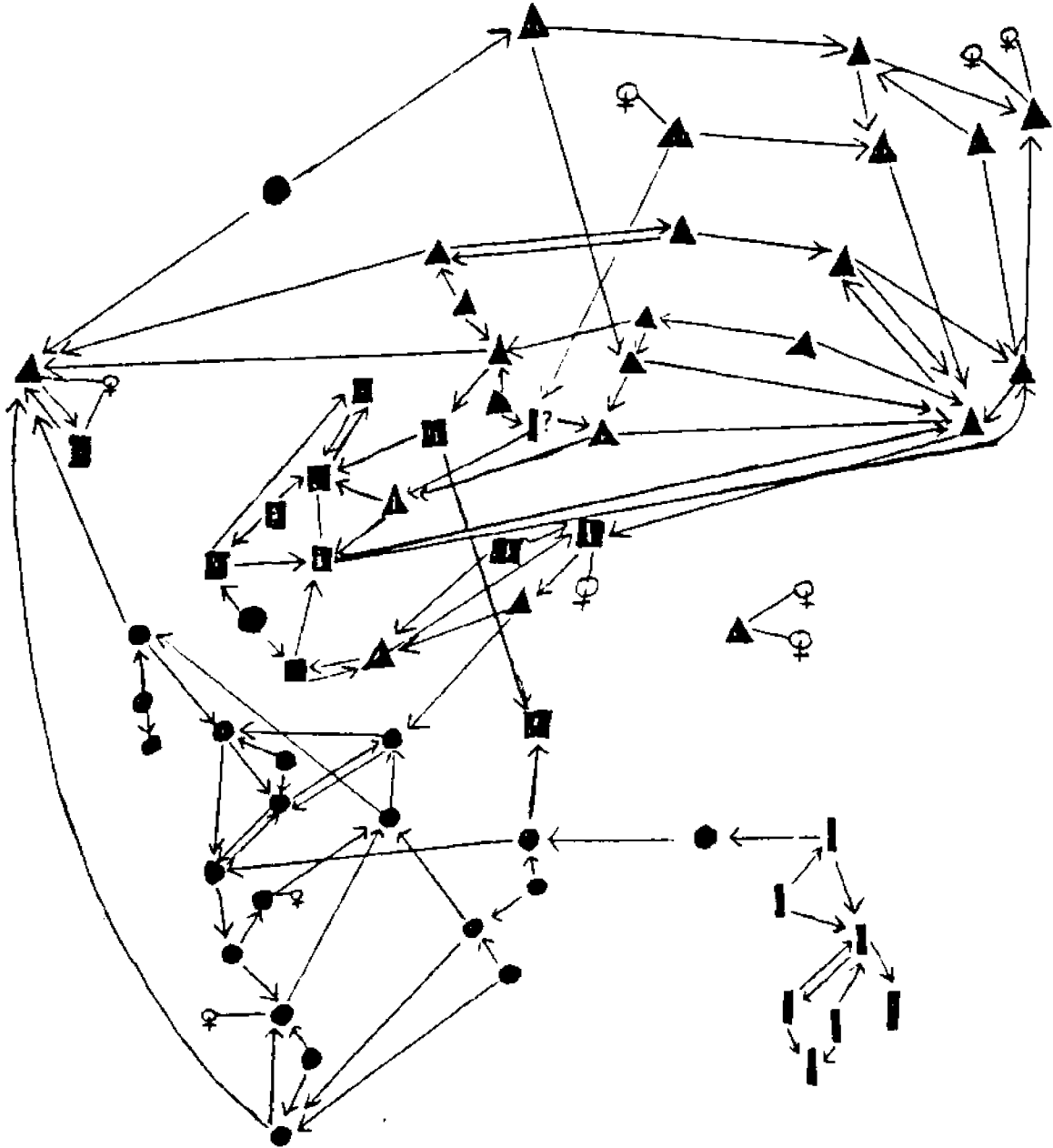
game <u>M</u>	gets materials for manf. _____	
deer _____	makes basket _____	
paca _____	makes weapon _____	
peccary <u>2</u> _____	carves club _____	Does an animal?
tapir _____	makes arrows <u>✓</u> _____	run/go by <u>M</u> _____
jaguar <u>M</u> _____	makes sleeping mat _____	attack <u>M</u> _____
armadillo <u>2</u> <u>3</u> _____	makes other _____	make noise _____
anceater _____	builds house _____	fall _____
crocodile _____	makes roof _____	other _____
snake _____	makes walls _____	
insect <u>2</u> <u>3</u> _____	makes floor _____	
bird <u>2</u> <u>3</u> _____	works for civilized _____	Anything else that deserves to be coded as
macaw _____	gets foreign goods _____	a separate "detail"?
parrot _____	gathers food _____	<u>climbs a tree - N</u>
tortoise _____	clears land _____	<u>jaguar attacks - N</u>
wild product _____	around house _____	<u>jaguar breaks weapons - N</u>
honey _____	at airstrip _____	<u>jaguar kills Indians' pet. - /</u>
Brazil nuts _____	a path _____	<u>shout for help. - N</u>
fruits <u>2</u> <u>3</u> <u>4</u> _____	a garden _____	<u>jaguar kills animal - N</u>
leaves for manf. _____	burns a garden _____	<u>jaguar covers animal with bark</u>
garden produce/food _____	plants a garden _____	<u>aim against forehead - M</u>
bananas _____	harvest from a garden _____	<u>club pruned in stomach - M</u>
manioc _____	sweeps house _____	<u>Chief stops fight - M</u>
sweet potatoes _____	puts things away _____	<u>paints self - N/F</u>
corn _____	washes dishes _____	<u>post-partum sex taboo - E</u>
rice _____	gets water _____	<u>cooks food - F</u>
other <u>2</u> <u>3</u> <u>4</u> _____	gets wood _____	<u>weeping</u>
manioc cakes _____	bathes self _____	
farinha _____	bathes child _____	
porridge _____	paints child _____	
broth _____	adorns child _____	
festival names _____	feeds child <u>E</u> _____	
Bep _____	gives water _____	
Takak _____	paints adult _____	
Nhak _____	pounds food _____	
Manioc juice (kwyr kango) _____	grates manioc _____	
war dance _____	soaks manioc _____	
other _____	dries manioc _____	
cin terms _____	roasts manioc _____	
c.s.d.a.f.b.z.n.k. _____	makes oven _____	
t.j.h.u.wm.wf.ha.hf.wb.wz _____	heats stones _____	
	makes fire _____	

## APPENDIX 4

## SOCIOMETRIC FRIENDSHIP TIES

- = Mĕ'ototi society (older section)
- ▲ = Mĕ'ototi society (younger " ")
- = Mĕpa'ikadjĕt society
- | = Nĕrny ("bachelors") age grade
- ♀ = a woman was named

(arrows lead into the person named as a friend)



## APPENDIX 5

## PARTIAL CORRELATIONS FOR CHAPTER 6

## INTERVENING VARIABLES BETWEEN AGE AND INFLUENCE

If a variable,  $x$ , intervenes between age and influence, we expect, after controls, that the smallest correlation will be that between age and influence. Table A5.1 shows that, for males, the number of one's sons, haranguer status, warrior status, and knowledge of ceremonies, ancestors and Indian things--all fit a model of  $x$  as intervening.

TABLE A5.1

## AGE AND INFLUENCE FOR MALES (PARTIALS)

x	Influence by age (controlling on x)	Influence by x (controlling on age)	Age by x (controlling on influence)
Sons	.23	.29	.37
Generosity	.47	.47	.12
Conversational Friends	.26	.37	.23
Work Friends	.33	.33	.07
"Realistic Humility"	.35	.16	.11
Shaman	.28	.10	.49
Haranguer	.17	.31	.47
Songleader	.36	.34	.02
Warrior	.05	.49	.49
Craftsman	.32	.62	.03
Hunter	.28	.32	.20
Knowledge of Ceremonies	-.08	.66	.49
Knowledge of Ancestors	.01	.52	.67
Knowledge of Indian things	.02	.43	.60

Table A5.2 shows that, for females, knowledge of ceremonies and knowledge of Indian things both intervene between age and influence.

TABLE A5.2  
AGE AND INFLUENCE FOR FEMALES (PARTIALS)

x	Influence by age (controlling on x)	Influence by x (controlling on age)	Age by x (controlling on Influence)
Sons	.31	.17	.52
Generosity	.38	.44	.11
Conversational Friends	.38	.36	.28
Work Friends	.48	.27	-.08
"Realistic Humility"	.46	.10	.15
Shaman	.45	.19	.09
Knowledge of Ceremonies	.06	.43	.63
Knowledge of Ancestors	.20	.11	.79
Knowledge of Indian things	.20	.32	.56
Painter	.50	.50	-.20
Child-Care	.41	-.23	-.18

## APPENDIX 6

## PARTIAL CORRELATIONS FOR CHAPTER 7

## INTERVENING VARIABLES BETWEEN HEIGHT AND INFLUENCE

If a variable,  $x$ , intervenes between height and influence, we expect that, when controlling for the different variables, the smallest correlation will be that between height and influence. Table A6.1 shows that none of the variables are consistent with a model of  $x$  as an intervening variable.

TABLE A6.1  
HEIGHT AND INFLUENCE FOR MALES (PARTIALS)

$x$	Height by Influence (controlling on $x$ )	Height by $x$ (controlling on influence)	Influence by $x$ (controlling on height)
Warrior Status	.33	.02	.55
Generosity	.33	.06	.48
Aggressive- ness	.35	.05	.43
T.A.T. Aggres- siveness	.44	-.16	.25
Good Looks	.41	-.05	.16
Descendance from the Chief	.35	.05	.41

Table A6.2 shows that only "generosity" is consistent with a model of x as an intervening variable between height and influence for women.

TABLE A6.2  
HEIGHT AND INFLUENCE FOR FEMALES (PARTIALS)

x	Height by Influence (controlling on x)	Height by x (controlling on influence)	Influence by x (controlling on height)
Generosity	.14	.17	.49
Aggressive- ness	.21	.01	.38
T.A.T. Aggres- siveness	.22	-.09	-.10
Good Looks	.23	.08	.01
Descendance from the Chief	.22	.02	.15

WARRIOR STATUS, AGGRESSIVENESS  
AND INFLUENCE

If warrior status intervenes between aggressiveness and influence, we expect that, after controls, the smallest correlation will be that between aggressiveness and influence. Table A6.3 shows this to be the case.

TABLE A6.3

AGGRESSIVENESS AND INFLUENCE FOR MALES (PARTIALS)

---

Aggressiveness by Influence (controlling for Warrior status)	.13
Aggressiveness by "Warrior Status (controlling on influence)	.61
Influence and Warrior Status (controlling on aggressiveness)	.44

---

INTERVENING VARIABLES BETWEEN CHILD-CARE BURDENS  
AND INFLUENCE

If a variable,  $x$ , intervenes between child-care burdens and influence, we expect, after controls, that the smallest correlation will be that between child-care burdens and influence. Table A6.4 shows that only "friends" fits a model of  $x$  as intervening.

TABLE A6.4  
CHILD-CARE BURDENS AND INFLUENCE  
FOR FEMALES (PARTIALS)

$x$	Child-Care by Influence (controlling on $x$ )	Child-care by $x$ (control- ling on influence)	Influence by $x$ (controlling on child-care)
Gardening Time	-.32	-.20	.09
Generosity	-.31	.05	.51
Aggressive- ness	-.28	-.12	.34
T.A.T. Aggression	-.38	-.30	-.22
Intelligence	-.29	.05	.66
Knowledge of Indians	-.21	-.18	.47
Friends	-.23	-.25	.32
Age	-.23	-.18	.42

## APPENDIX 7

## PARTIAL CORRELATIONS FOR CHAPTER 8

If a variable, x, intervenes between descentance from the chief and influence, we expect, after controls, that the smallest correlation will be that between descentance from the chief and influence. Table A7.1 shows that knowledge of civilized ways, intelligence and ambition all fit a model of x as intervening.

TABLE A7.1

DESCENDANCE FROM THE CHIEF AND INFLUENCE  
FOR MALES (PARTIALS)

x	Influence by Descendance from the chief (controlling on x)	Descendance from the chief by x (control- ling on influence)	Influence by x (controlling on descentance from the chief)
Generosity	.47	-.16	.54
Friends	.43	-.01	.41
Brothers	.26	.56	.20
Haranguer	.57	-.40	.57
Shaman	.54	-.35	.41
Warrior	.40	-.02	.55
Craftsman	.45	-.15	.63
Hunter	.38	.28	.20
Knowledge of Ancestors	.47	-.16	.60
Knowledge of Ceremonies	.29	.09	.66
Knowledge of Indians	.54	-.31	.61
Ambition	.25	.36	.39
Aggressiveness	.40	.05	.42
Height	.41	.05	.42
Intelligence	.23	.28	.52
Knowledge of Civilized Ways	.20	.29	.56

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