

4 / Social Organization and Demography

In this chapter I will discuss the daily social life and social organization of the Yānomamō from several vantages, for there are, indeed, a number of acceptable and widely used approaches to the understanding of social organization in primitive societies. I will focus primarily on the fascinating problem of village fissioning among the Yānomamō and how this reflects the 'failure of solidarity,' the inability of villages to be held together by kinship, marriage, descent from common ancestors, and the ephemeral authority of headmen such as Kḡobawā. It would appear that primitive societies can only grow so large at the local level—the village in this case—if internal order is provided by just these commonly found integrating mechanisms: kinship, marriage, and descent.

I will also counterpose two points of view that are widely found in the field of anthropology. One of the approaches is the "structural" approach, which focuses on 'ideal models' of societies, models that are constructed from the general rules of kinship, descent, and marriage. These are highly simplified but very elegant models, but they do not address the actual behavior of individuals in their day-to-day kinship roles, their actual marriage practices, their life histories, and why individuals simply cannot 'follow' the ideal rules. The second approach is the 'statistical models' approach, which is usually based on large numbers of actual behavioral and genealogical facts, but yields less elegant, less simplified models. However, such models conform more to reality. I prefer the latter, for they lead to a more satisfactory way to understand individual variation and therefore the ability to predict social behavior. To be able to engage in this approach, one must, of course, know what the "ideal" patterns are that people's behavioral choices deviate from.

A poignant way of illustrating the difference in these approaches is an anecdote I once heard the famous French anthropologist Claude Levi-Strauss use to justify his interest in ideal models and 'structures.' He likened social and cultural anthropology to a kind of science that studies crustaceans. It is legitimate, and even meritorious, he said, to concern oneself with the shell of the organism itself. Levi-Strauss preferred to consider the shells: They are attractive, symmetrical, pleasant to handle, and pleasant to think about. But he acknowledged that there were other ways of studying this life form. One could focus on the slimy, amorphous, rather unpleasant animal that lives in the shell—such as an oyster or snail. That, too, was a legitimate and meritorious endeavor, and he had no objection if others pursued that kind of approach. The issue, of course, has to do with the

extent to which the shell and the amorphous animal inside it make much sense when considered alone and separately. My own view is that the animal inside the symmetrical shell is not as amorphous as it appears and itself has some structured integrity. I also believe that there has to be some kind of causal relationship between the animal and the type of structure it generates in the form of an elegant shell. The shell in this analogy is 'social structure.' The amorphous animal inside it is 'social behavior.' Once the question is posed, 'What causes the animal to produce the elegant, symmetrical, shell?' then a great variety of possible answers—and theoretical issues—comes into play. These are questions about causes of human behavior and, in turn, how that behavior—acts, thoughts, sentiments found among individuals in particular cultures—is shaped by and reflects realities such as demographic facts, physiological differences between males and females, and the evolved nature of the organism itself.

DAILY SOCIAL LIFE

Male-Female Division

A number of distinctions based on status and physiology are important in daily life. Perhaps the most conspicuous and most important is the distinction between males and females and what each has to do as he or she becomes an adult.

Yanomamö society is decidedly masculine—male chauvanistic if you will. Many Yanomamö make statements like 'Men are more valuable than women . . . boys more valuable than girls. . . .' Female children assume duties and responsibilities in the household long before their brothers are obliged to participate in comparable useful domestic tasks. Little girls are obliged to tend their younger brothers and sisters, and expected to help their mothers in other chores such as cooking, hauling water, and collecting firewood (Figure 4.1). By the time girls have reached puberty they have already learned that their world is decidedly less attractive than that of their brothers. Most have been promised in marriage by that time.

Girls, and to a lesser extent boys, have almost no voice in the decisions reached by their elder kin in deciding whom they should marry. They are largely pawns to be disposed of by their kinsmen, and their wishes are given very little consideration. In many cases, the girl has been promised to a man long before she reaches puberty, and in some cases her husband-elect actually raises her for part of her childhood. 'Boys' seem to be more able to 'initiate' the process and have their older kin make the first marital inquiries, but since males marry later in life than females, these 'boys' are actually young men and the girls they are interested in are much, much younger, often just children. In a real sense, girls do not participate as equals in the political affairs of the corporate kinship group and seem to inherit most of the duties without enjoying many of the privileges, largely because of age differences at first marriage and the increase in status that being slightly older entails.

Marriage does not automatically enhance the status of the girl or change her life much. There is no 'marriage ceremony,' and the public awareness of her marriage begins with hardly more than comments like 'her father has promised her to

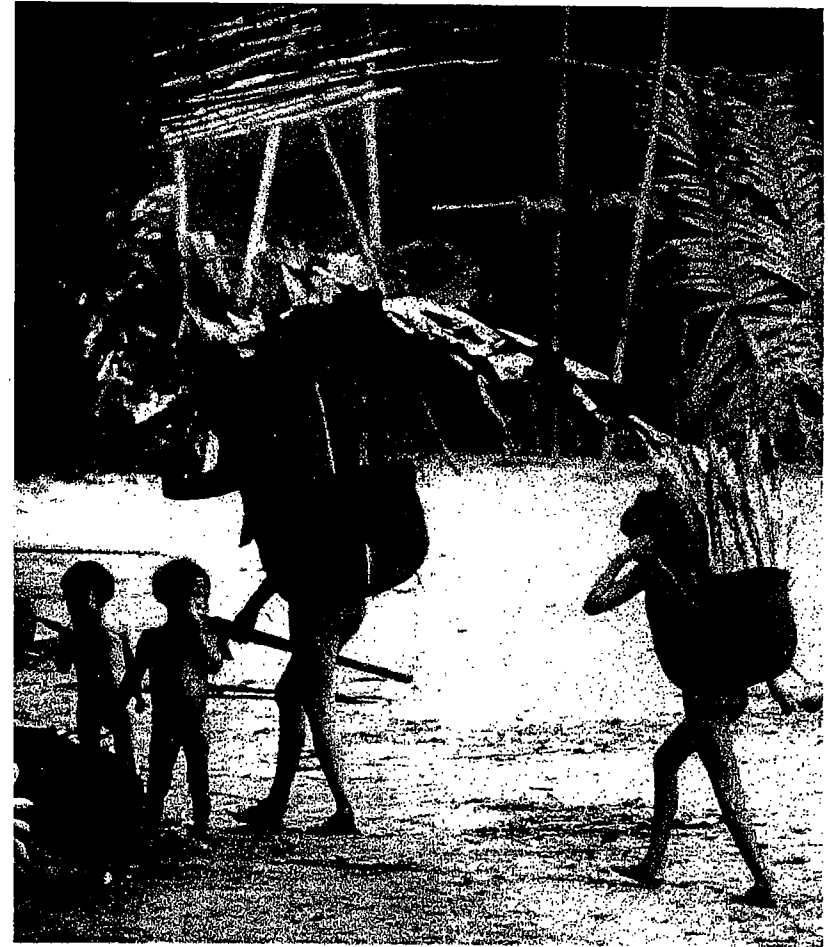


Figure 4.1. Woman and her young daughter returning with loads of firewood. Girls become economically useful sooner than boys and contribute significantly to household labor.

so-and-so.' She usually does not begin living with her husband until after she has had her first menstrual period, although she may be 'married' for several years before then. Her duties as wife require her to continue the difficult and laborious tasks she has already begun doing, such as collecting firewood and fetching water every day. Firewood collecting is particularly difficult, and women spend several hours each day scouring the neighborhood for suitable wood. There is usually an abundant supply in the garden within a year of clearing the land, but this disappears

rapidly. Thereafter, the women must forage further afield to collect the daily supply of firewood, sometimes traveling several miles each day to obtain it. It is a lucky woman who owns an ax, for collecting wood is a tedious job without a steel tool. The women can always be seen leaving the village about 3 or 4 P.M. and returning at dusk, usually in a procession, bearing enormous loads of wood in their pack baskets (Figure 4.2). If a woman locates a good supply of wood near the village, she will haul as much as she can and store it rather than let it be taken by her covillagers.

Women must respond quickly to the demands of their husbands and even anticipate their needs. It is interesting to watch the behavior of women when their husbands return from a hunting trip or a visit. The men march dramatically and proudly across the village and retire silently into their hammocks, especially when they bring home desirable food items. The women, no matter what they are doing, hurry home and quietly but rapidly prepare a meal. Should the wife be slow at doing this, some irate husbands scold them or even beat them.

Most physical reprimands meted out take the form of blows with the hand or with a piece of firewood, but a good many husbands are more severe. Some of them chop their wives with the sharp edge of a machete or ax or shoot them with a barbed arrow in some nonvital area, such as the buttocks or leg. Some men are given to punishing their wives by holding the glowing end of a piece of firewood against



Figure 4.2. Women returning from the garden at dusk with loads of firewood.

them, producing painful and serious burns. The punishment is usually, however, more consistent with the perceived seriousness of the wife's shortcomings, more drastic measures being reserved for infidelity or suspicion of infidelity. It is not uncommon for a man to injure his sexually errant wife seriously and some men have even killed wives for infidelity by shooting them with an arrow.

Women who are not too severely treated might even measure their husband's concern in terms of the frequency of minor physical reprimands they sustain. I overheard two young women discussing each other's scalp scars. One of them commented that the other's husband must really care for her since he has beaten her on the head so frequently!

A woman can usually depend on her brothers for protection. They will defend her against a cruel husband. If a man is too severe to a wife, her brothers may take the woman away from him and give her to another man. It is largely for this reason that women usually abhor the possibility of being married off to men in distant villages; they know that their brothers cannot protect them under these circumstances. Women who have married a male cross-cousin have an easier life, for they are related to their husbands by cognatic ties of kinship as well as by marriage. Bahimi is, for example, K̄obawā's Mother's Brother's Daughter (MBD), and their marital relationship is very tranquil. He does punish Bahimi occasionally, but never cruelly. Some men, however, seem to think that it is reasonable to beat their wife once in a while as if the objective is 'just to keep her on her toes.'

People sometimes ask me about what the Ȳnomamō think about 'love.' They have a concept, *buhi yabraō*, that I thought, at first, could be translated into our notion 'love.' I remember being very excited when I learned this. I asked lots of questions, using concrete examples. 'Do you "love" so-and-so?' naming their brother or sister. 'Yes!' 'Do you "love" so-and-so?' naming their child? 'Yes!' 'Do you love so-and-so?' naming their wife. A stunned silence followed, then peels of laughter. 'You don't "love" you wife, you idiot!' One could plausibly argue that, if 'love' in their culture is restricted to the kind of feelings you have toward close blood relatives, then one is more likely to have some of these feelings about spouses if, as in K̄obawā's case, one marries a blood relative—a close cousin—as he did.

A young man in Monou-teri shot and killed his wife a few years before I conducted my fieldwork. Even while I was there, a man in one of the villages shot his wife in the stomach with a barbed arrow. Considerable internal injury resulted when the arrow was removed. The missionaries had her sent out by airplane to the Territorial capital for surgery. Her wound had gotten infected, and the girl was near death by the time the incident came to their attention. Another man chopped his wife on the arm with a machete; the missionaries in that village feared that the woman would lose the use of her hand because some of the tendons to her fingers were severed. A fight involving a case of infidelity took place in one of the villages just before I left the field. The male culprit was killed in the club fight, and the recalcitrant wife had both her ears cut off by her enraged husband. A number of other women had their ears badly mutilated by angry husbands. The women wear short pieces of arrowcane in their pierced ear lobes; these are easily grabbed by the husband. A few men jerked these so hard that they tore their wife's ear lobes open.

There is a somewhat rare way a woman can escape the tragedy of marriage to an

especially cruel or undesirable husband. They have a word for this: *shuwahimou*. This is applied to women who, on their own initiative, have fled from their village to live in another village and find a new husband there. It is rare because it is dangerous. If her own village is stronger than the one she flees to, they will pursue her and forcibly take her back—and mete out very severe punishment to her for having run away. They may even kill her. Most women who have done this have done it to escape the savage treatment they have received at the hands of a cruel husband.

By the time most women are 30 years old they have "lost their shape" because of the children they have borne, the children they have nursed for up to 3 years each, and the years of hard labor; and they seem to be much more often in 'bad moods' than men. They seem, in these moods, to have developed a rather unpleasant attitude toward life in general and toward men in particular. To the outsider, the older women seem to chronically speak in what sounds like a 'whine,' frequently punctuated with contemptuous statements and complaints. When they are happy and excited, this 'whining' character in their voices disappears, and they laugh gleefully, make wise-cracks, and even taunt the men, or each other, with biting insults and clever jokes.

A woman gains increasing respect as she ages, especially when she is old enough to have adult children who care for her and treat her kindly. Old women also have a unique position in the world of intervillage warfare and politics. They are immune from the incursions of raiders and can go from one village to another with complete disregard for personal danger. In this connection they are sometimes employed as messengers and, on some occasions, as the recoverers of bodies. If a man is killed near the village of an enemy, old women from the slain man's village are permitted to recover his body.

All women fear being abducted by raiders and always leave the village with this anxiety at the back of their minds when their village is at war. They take their children with them, particularly younger children, so that if they are abducted, the child's future will not be put in jeopardy because of the separation of the mother. They are therefore concerned with the political behavior of their men and occasionally goad them into taking action against some possible enemy by caustically accusing the men of cowardice. The men cannot stand being belittled by the women in this fashion, and are badgered to take action by the biting insults of the women. This is clearly the case in the film *The Ax Fight* listed at the end of this book.

Child-Adult Division

Despite the fact that children of both sexes spend much more of their time with their mothers, the boys are taught a number of sex-specific roles and attitudes by their fathers and are encouraged to learn 'masculine' things by watching them. The distinction between male and female status develops early in the socialization process. Boys are encouraged to be 'fierce' and are rarely punished by their parents for inflicting blows on them or on the hapless girls in the village. This can be seen in one of the scenes in the film *A Man Called Bee*, in which the 5-year-old boys are not

only 'beating' each other on the head with toy clubs but are also 'beating' the little girls as well (Chagnon and Asch, 1974a). Kaobawā, for example, lets Ariwari beat him on the face and head to express his anger and temper, laughing and commenting on his 'ferocity'. Although Ariwari is only about 4 years old, he has already learned that the appropriate response to a flash of anger is to strike someone with his hand or with an object, and it is not uncommon for him to give his father a healthy smack in the face whenever something displeases him. He is frequently goaded into hitting his father by teasing, being rewarded by gleeful cheers of assent from his mother and from the other adults in the household.

When Kaobawā's group travels, Ariwari emulates his father by copying his activities on a child's scale. For example, he erects a temporary hut from small sticks and discarded leaves and plays happily in his own camp. His sisters, however, are pressed into more practical labor and help their mother do useful tasks. Still, the young girls are given some freedom to play at being adults and have their moments of fun with their mothers or other children.

But a girl's childhood ends sooner than a boy's. The game of playing house fades imperceptibly into a constant responsibility to help mother. By the time a girl is 10 years old or so, she has become an economic asset to the mother and spends a great deal of time working. Little boys, by contrast, spend hours playing among themselves and are able to prolong their childhood into their late teens if they so wish. By that time a girl has married, and many even have a child or two. 'Huyas' (young men, usually unmarried) are a social problem in almost all Yānomamō villages and are often the source of much of the sexual jealousy since they try to seduce young women, almost all of whom are married.

A girl's transition to womanhood is obvious because of its physiological manifestations. At first menses (*yōbōmou*), Yānomamō girls are confined to their houses and hidden behind a screen of leaves. Their old cotton garments are discarded and replaced by new ones manufactured by their mothers or by older female friends. During this week of confinement, the girl is sparingly fed by her relatives; her food must be eaten by means of a stick, as she is not allowed to come into contact with it in any other fashion. She speaks in whispers, and then only to close kin. She must also scratch herself with another set of sticks. After her puberty confinement, a girl usually takes up residence with her promised husband and begins life as a married woman.

Female students often ask me, 'What do the women do when they have their menstrual periods? What do they "wear" for sanitary napkins?' The Yānomamō word for menstruation translates literally as 'squatting' (*roo*), and that fairly accurately describes what pubescent females (and adult women) do during menstruation. They simply remain inactive during menstruation, squatting on their haunches and allowing the menstrual blood to drip on the ground. Yānomamō women do not use the equivalents of tampons or sanitary napkins. And here lies an important difference between the "environment" we live in versus the one they live in. Sanitary napkins might be a useful invention if and when they are regularly and repeatedly needed, but Yānomamō women menstruate relatively infrequently, for they are either pregnant or nursing infants much of their lives.

Males do not have their transition into manhood marked by a ceremony. Nevertheless, one can usually tell when a boy is attempting to enter the world of men. The most conspicuous sign is his resentment when others call him by his name. When the adults in the village cease using his personal name, the young man has achieved some sort of masculine adult status. Young men are usually very touchy about their names and they, more than anyone else, take quick offense when hearing their names mentioned. The Yānomamō constantly employ *teknonymy* when a kinship usage is ambiguous. Thus, someone may wish to refer to Kāobawā in a conversation, but the kinship term appropriate to the occasion might not distinguish him from his several brothers. Then, Kāobawā will be referred to as "father of Ariwari." However, when Ariwari gets older he will attempt to put a stop to this in an effort to establish his status as an adult. A young man has been recognized as an adult when people no longer use his name in teknonymous references. Still, the transition is not abrupt, and it is not marked by a recognizable point in time.

Finally, the children differ from adults in their susceptibility to supernatural hazards. A great deal of Yānomamō sorcery and mythological references to harmful magic focuses on children as the target of malevolence. Yānomamō shamans are constantly sending their *hekura* to enemy villages. There, they secretly attack and devour the vulnerable portion of the children's souls, bringing about sickness and death. These same shamans spend an equal amount of time warding off the dangerous spirits sent by their enemies. Children are vulnerable because their souls are not firmly established within their physical beings and can wander out of the body almost at will. The most common way for a child's soul to escape is to leave by way of the mouth when the child cries. Thus, mothers are quick to hush a bawling baby in order to prevent its soul from escaping. The child's soul can be recovered by sweeping the ground in the vicinity where it most probably escaped, calling for it while sweeping the area with a particular kind of branch. I once helped gather up the soul of a sick child in this fashion, luring it back into the sick baby. One of the contributions I made, in addition to helping with the calling and sweeping, was a dose of medicine for the child's diarrhea.

Daily Activities

Kāobawā's village is oval shaped. His house is located among those of his agnatic kinsmen, i.e., men related through male ties. They occupy a continuous arc along one side of the village. Each built his own section of the village, but in such a way that the roofs coincided and could be attached by simply extending the thatching. When completed, the village looked like a continuous, oval-shaped lean-to because of the way in which the roofs of the discrete houses were attached. Each house, however, is owned by the family that built it. Shararaiwā, Kāobawā's youngest brother, helped build Kāobawā's house and shares it with him. He also shares Koamashima, Kāobawā's younger wife. Kāobawā's older wife, Bahimi, hangs her hammock adjacent to Kāobawā's most of the time, but when there are visitors and the village is crowded, she ties her hammock under his in order to be able to tend the fire during the night. Ariwari still sleeps with his mother, but will get his own

hammock soon: he is nearly 4 years old. His parents are afraid he will fall into the fire at night and get burned, since he is still a little too young to sleep alone. This happened to one of the babies in Kāobawā's village—it slipped from his mother's arms while she slept and fell into the glowing embers. The infant died from the severe burns. The mother, shown in Figure 1.10, also died tragically from a snake bite not long after.

Daily activities begin early in a Yānomamō village. One can hear people chatting lazily and children crying long before it is light enough to see. Most people are awakened by the cold and build up the fire just before daybreak. They usually go back to sleep, but many of them visit and talk about their plans for the day.

The entrances are all covered with dry brush so that any attempt to get through them is heard all over the village. There is always a procession of people leaving the village at dawn to relieve themselves in the nearby garden, and the noise they make going in and out of the village usually awakens the others. Covering the entrances with brush and poles also helps keep out unwanted malevolent spirits that roam near the village at night.

The village is very smoky at this time of day, since the newly stoked campfires smolder before they leap into flames. The air is usually very still and chilly, and the ground is damp from the dew. The smoke is pleasant and seems to drive away the coolness.

Clandestine sexual liaisons often take place at this time of day, having been arranged on the previous evening. The lovers leave the village on the pretext of 'going to the toilet' and meet at some predetermined location. They return to the village, separately, by opposite routes.

This is also the time of day when raiders strike, so people must be cautious when they leave the village at dawn. If there is some reason to suspect raiders, they do not leave the confines of the upright log palisade that surrounds the village. They wait instead until full light and leave the village in armed groups. I have seen villages whose members cleared every blade of grass and shrub for a radius of 25 or 30 meters from the village to make sure raiders could not sneak up close for an easy shot, and when people left the village they did so accompanied by groups of nervous men, often with one of their arrows already nocked in their bows.

By the time it is light enough to see, everybody has started preparing breakfast. This consists largely of green plantains, easily prepared by placing them, peeled, on the glowing coals of the family fire. Leftover meat is taken down and shared, the men usually getting the tastiest portions. The meat is hung over the fire by a vine to keep the vermin off it and to preserve it.

If any of the men have made plans to hunt that day, they leave the village before it is light. Wild 'turkeys' (*paruri*) can be easily taken at this time of day because they roost in conspicuous places. During the dry season the *hashimo* (a kind of grouse) sing before dark and can be readily located. If any were heard the night before, the men note these exact locations and leave at dawn to stalk them, because they sing again at dawn and can be shot relatively easily.

Tobacco chewing starts as soon as people begin stirring. Those who have fresh supplies soak the new leaves in water and add ashes from the hearth to the wad. Men, women, and children chew tobacco, and all are addicted to it. Normally, if

anyone is short of tobacco, he can request a share of someone else's already chewed wad, or simply borrow the entire wad when its owner puts it down somewhere. Tobacco is so important to them that their word for 'poverty,' *hqri*, literally translates as 'being without tobacco.' I frequently justified my reluctance to give away possessions on the basis of my "poverty," using their word *hqri*. Many of them responded by spitting their wads out and handing them to me contemptuously, for they knew I usually had many of the items they wanted, an act that implied something like 'If you are *that* poor, then take my tobacco from me! At least one of us is willing to be generous and share in times of poverty!'

Work begins as soon as breakfast is completed; the Yanomamö like to take advantage of the morning coolness. Within an hour after it is light the men are in their gardens clearing brush, felling large trees, transplanting plantain cuttings, burning off dead timber, or planting new crops of cotton, maize, sweet potatoes, yuca, or the like, depending on the season. They work until 10:30 A.M., retiring because it is too humid and hot by that time to continue with their strenuous work. Most of them bathe in the stream before returning to their hammocks for a rest and a snack.

The women usually accompany their husbands to the garden and occupy themselves by helping with planting and weeding. In this way the men are sure the women are not having affairs with other men. I have seen young men oblige their newly acquired wives to keep within their eyesight almost all day long for this reason. They assume, not without justification, that an unguarded mate will eventually be approached by other men for sexual favors and might succumb to the temptation, a concern that is equally well-grounded.

The children spend a great deal of time exploring the wonders of the plant and animal life around them and are accomplished "naturalists" at an early age. Most 12-year-old boys can, for example, name 20 species of bees and give the anatomical or behavioral reasons for their distinctions, and they know which ones produce the best honey. An 8-year-old girl brought me a tiny, unidentifiable egg on one occasion and asked me to watch it with her. Presently, it cracked open and numerous baby cockroaches poured out, while she described the intimate details of the reproductive process to me.

The younger children stay close to their mothers, but the older ones have considerable freedom to wander about the garden at play. Young boys hunt for lizards with miniature bows and featherless arrows. If they can capture one alive, they bring it back to the village and tie a string around it. The string is anchored to a stick in the village clearing and the little boys chase it gleefully, shooting scores of tiny arrows at it (Figure 4.3). Since lizards are very quick and little boys are poor shots, the target practice can last for hours. Usually, however, the fun terminates when an older boy decides to make an end to the unhappy lizard and kills it with his adult-sized arrows, showing off his archery skills to the disgruntled small fry. The game that I found most ingenious and clever was the 'get the bee' game. The children catch live bees and tie light cotton threads to their bodies, allowing them to try to fly off dragging the string behind them. The bees have difficulty flying and move very slowly, with the string sticking straight out behind them as the draft from their frantically beating wings holds it straight. The children then chase the bees



Figure 4.3. Little boys practicing archery with a lizard that is tied by a string.

with sticks, trying to knock them down. Sometimes the children will be organized by older men, who teach them how to go on raids. They usually sneak up on an effigy made of leaves and shoot it full of arrows on the command of the older men, and then 'flee' from the scene.

The village is often almost completely empty for the midday hours, since people are out collecting, hunting or doing other tasks. Those who remain in the village rest in their hammocks during the heat of midday.

If the men return to their gardening, they do so about 4:00 P.M., working until sundown. Prior to, or often instead of, that they usually gather in small groups around the village and take hallucinogenic snuff, chanting to the *hekura* spirits as the drugs take effect. Most of the men enjoy doing it, despite the associated unpleasantness of vomiting and the pain that follows the blast of air as the powder is blown deeply into the nasal passages. This usually lasts for an hour or two, after which the men bathe to wash the vomit or nasal mucus off their bodies.

Whatever the men do for the afternoon, however, the women invariably search for firewood and haul immense, heavy loads of it to their houses just before dark.

The biggest meal of the day is prepared in the evening. The staple is plantains, but frequently other kinds of foods are available after the day's activities, usually some form of protein, such as small game animals or birds, a monkey, crabs, fish, or even insect larvae. It is a happy occasion, however, if someone should kill a bigger animal, such as a tapir, for then a large number of people will get a share, depending on their kinship ties. Hunters who kill tapirs are supposed to give all the meat away and eat none of it themselves. They usually give it to their brothers-in-law or father-in-law, and the sharing is done by them.

Both sexes participate in the cooking, although the women do the greater share of it. Men do all the cooking at feasts, a ceremonial occasion (see Chapter 5). Food preparation is not elaborate and rarely requires much labor, time, or paraphernalia. Spices are never used, although the salty ashes of a particular kind of tree are sometimes mixed with water to form a condiment of sorts. The food is dunked into the salty liquid and eaten (see Chapter 2).

Everyone eats in his hammock with his fingers. Some meals cannot be eaten from a reclining position, so the members of the family squat in a circle around the common dish. For example, large quantities of tiny fish are cooked by wrapping them in leaves and cooking them in the hot coals. When the fish are done, the package is spread open, and everyone squats around it and shares its contents. They gather around, and amidst much finger licking, spitting out of bones, tossing of inedible portions, and sighs of content, rapidly devour the contents of the package with alternate bites of plantain.

Animals are never skinned before cooking. They are merely put over the fire after their entrails have been removed, and roasted—head, fur, claws, and all. Most of the fur is singed off in the process of cooking, or in some cases, a fire is made outside the village to singe the fur off the animal. Most small animals are cooked whole. Larger animals are cut up with knives or machetes before smoking or roasting. The head of a monkey is highly prized because the brain is considered a delicacy. Monkey is one of the more common meats, so that this delicacy is enjoyed rather frequently by the Yānomamō. Certain parts of some animals are considered to be the prerogative of women, such as the heads of wild turkeys. Old women often eat some kinds of animals that younger people would refuse to touch, reflecting the fact that they tend to be very far down the list of who shares the better portions with whom.

By the time supper is over, it is nearly dark. The fires are prepared for the evening; if someone has allowed his own fire to go out during the day, he simply borrows two glowing sticks from a neighbor and rekindles his own hearth. The entrances to the village are sealed off with dry brush so that prowlers cannot enter without raising an alarm or harmful spirits will stay outside. Before retiring to their hammocks, the Yānomamō first sit on them and wipe the bottoms of their bare feet by rubbing them together. This rubs off most of the debris that has accumulated on them during the course of the day. Everyone sleeps naked and as close to the fire as possible. Despite the inevitable last-minute visiting, things are usually quiet in the village by the time it is dark.

Things are not always quiet after dark. If anyone in the village is sick, a shaman will chant to his spirits most of the night to exorcise the sickness. Or, should anyone be mourning a dead kinsman, he or she will sob and wail long after the others have fallen asleep. Occasionally, a fight will break out between a husband and wife, and soon everybody in the village will be screaming, expressing opinions on the dispute. The shouting may continue sporadically for hours, dying down only to break out anew as someone gets a fresh insight into the problem. Once in a while someone, usually a prominent man, gives a long, loud speech voicing his opinion of the world in general. This is called *patamou* or *kqwa amou* by the Yānomamō—to 'act big'. Those who are interested may add their own comments, but the audience usually grumbles about the noise and falls asleep. The more proficient I became in their language, the more I emulated them. I now frequently make nocturnal 'speeches' myself, to the village at large, telling everyone what I plan to do the next day, going into elaborate detail and explaining what gifts I will present after I am done. I receive many complements on my *kqwa amou* speeches. This also helps them plan their own activities, since if I plan to work with women informants the next day the men know they don't have to hang around the village in case I start giving presents away to the men, etc.

Status Differences and Activities

Daily activities, except those concerning gardening, collecting and visiting, do not vary much from season to season. Much of the variation that does occur is a function of one's age or sex.

Other status differences do exist and account for some variation in the activities of particular individuals. Rerebawā, for example, is an outsider to Kaḡobawā's group and had no intention of joining the village as a permanent resident. Consequently, he did not participate in the gardening activities and had considerably more spare time than other married men. He spent this time hunting for his wife and her parents, one of his obligations as a son-in-law. He was quite dependent on them for the bulk of his diet because they provided him with all his plantains. He is quick to make reference to his hunting skills and generosity with meat, perhaps to draw attention away from the fact that he did not cultivate food for his wife and children. He was able to avoid making a garden because of his status as a *sioha*—an in-married son-in-law. He intended to return to his own village as soon as his bride service was over. But his in-laws wanted him to stay permanently so that he would be able to provide them with meat and garden produce when they are old. They have no sons to do this for them and even promised Rerebawā their second daughter on the condition that he remain permanently in the village. They prevented Rerebawā from taking Shjhotama, his wife, and children home by keeping at least one of the children with them when Rerebawā went to visit his own family. They knew that Shjhotama could not bear to be separated permanently from her child, and Rerebawā invariably brought her back home so that she could be with the child.

By Yānomamō standards he did enough bride service and deserves to be given his wife. Also, by their standards he has lived in the village so long that he should be obliged to make his own garden. But he was in a position to legitimately refuse to

do this because he discharged his son-in-law obligations well beyond what was expected of him.

Kəobawä, on the other hand, has the special status of being his group's headman. Apart from this, he is also some 20 years senior to Rerebawä and has many more obligations and responsibilities to his larger number of kin. Rerebawä, in addition to initially refusing to make a garden, thought nothing of taking a week-long trip to visit friends, leaving his wife and children with her parents. His attitude toward the children, compared to Kəobawä's, was rather indifferent. For example, Kəobawä had planned to accompany me to Caracas to see how 'foreigners' live until Ariwari began crying and appealed to his father's paternal sensitivities. Kəobawä stepped out of the canoe, took off the clothing I had loaned him, and picked up Ariwari. 'I can't go with you,' he explained. "Ariwari will miss me and be sad."

Kəobawä seems to "think" for the others in the village, many of whom are not able to perceive some of the less obvious implications of situations. In political matters he is the most astute man in the group, but he so diplomatically exercises his influence that the others are not offended. Should someone be planning to do something that is potentially dangerous, he simply points out the danger and adds parenthetically, 'Go ahead and do it if you want to, but don't expect sympathy from me if you get hurt.' Shararaiwä, his youngest brother, planned to take a trip to a distant village with me. I knew that the two villages were not on particularly good terms with each other, but they were not actively at war. Kəobawä arrived at my canoe just as we were about to depart and asked me not to take Shararaiwä along, explaining that the Iyāwei-teri might possibly molest him and precipitate hostilities between the two groups. Shararaiwä was willing to take a chance that my presence would be sufficient to deter any potential trouble, but Kəobawä would not risk it.

On another occasion a group of men from Patanowä-teri arrived to explore with Kəobawä the possibility of peace between their two villages. They were brothers-in-law to him and were fairly certain that he would protect them from the village hotheads. One of the ambitious men in Kəobawä's group saw in this an opportunity to enhance his prestige and made plans to murder the three visitors. This man, Hontonawä, was a very cunning, treacherous fellow and quite jealous of Kəobawä's position as headman. He wanted to be the village leader and privately told me to address *him* as the headman. On this occasion Kəobawä let it be known that he intended to protect the visitors. For the better part of the day the village was in a state of suspense. Hontonawä and his followers were not to be found anywhere; a rumor spread that they had painted themselves black, were boasting of their fierceness, and were well armed. Kəobawä and his supporters, mostly his own brothers and brothers-in-law, remained in the village all day, their weapons close at hand. Late in the afternoon Hontonawä and his men appeared in their black paint and took up strategic posts around the village. He himself held an ax. He strutted arrogantly and with determination up to the visitors holding his ax over his head as if he were ready to strike. The village became very quiet, and most of the women and children fled nervously. Neither Kəobawä nor the Patanowä-teri visitors batted an eyelash as Hontonawä stood there, menacing the visitors, although the others were visibly anxious and sat up abruptly in their hammocks. It was a showdown.

But instead of striking the visitors with the ax as he seemed to be preparing to do, he brought the ax back down to his side and aggressively invited one of the visitors out to chant with him. Within seconds all three of the visitors had paired off with members of Hontonawä's group and were chanting passionately with them, explaining the reasons for their visit and giving their justification for the state of hostilities.

The crisis had been averted because of Kəobawä's implied threat that he would defend the visitors with force. A number of men in Hontonawä's group were visitors from Monou-teri; their headman had been killed a few months earlier by the Patanowä-teri. When Hontonawä failed to go through with his plan, they left the village in a rage, hoping to recruit a raiding party in their own village and ambush the visitors when they left.

Kəobawä realized that the visitors would not be safe until they got back home, since the Monou-teri would attempt to intercept them. He visited me that night and asked me to take the visitors back to their village at dawn in my canoe, knowing that I had already planned a trip there in a day or so. After I agreed to accelerate my own plans, he proceeded to give me instructions about the trip: I should not stop to visit at any of the villages along the Upper Orinoco River, for all of them were at war with the Patanowä-teri and would shoot my companions on sight. During that trip the Patanowä-teri men lay on the floor of my canoe and covered themselves with a tarp when we passed these villages. The men on the bank shouted curses at me for not stopping to visit and give them trade goods. At this time the Patanowä-teri were being raided by about a dozen different villages. We had to cover part of the distance to their village on foot, proceeding very cautiously because of the danger of raiders. At one point the men showed me the spot where a Hasuböwä-teri raiding party had killed a Patanowä-teri woman a week earlier. Thus, Kəobawä not only protected the visitors while they were in his village but he also arranged a 'safe-conduct' for their return.

Kəobawä keeps order in the village when people get out of hand. Hontonawä, for example, is particularly cruel to his four wives and beats them severely for even slight provocations. None of his wives have brothers in the village, and few people are courageous enough to interfere with him when he is angry. On one occasion Kəobawä was holding a feast for the members of an allied village. His preparations were being duplicated by an equal effort on the part of Hontonawä, an obvious attempt by the latter to show that he was also a leader. Some of the visitors arrived early and were visiting in Hontonawä's house. He commanded one of his wives to prepare food for them, but the woman moved a little too slowly to suit him. Hontonawä went into a rage, grabbed an ax, and swung it wildly at her. She ducked and ran screaming from the house. He recovered his balance and threw the ax at her as she fled, but missed. By this time, Kəobawä had seen the ax go whizzing over the woman's head; he raced across the village in time to take a machete from Hontonawä before he could inflict much damage with it. He did manage, however, to hit her twice before Kəobawä disarmed him, splitting her hand wide open between two of her fingers with one of the blows. On another occasion one of Kəobawä's brothers took too much *ebene* and became violent. He staggered to the center of the village with his bow and arrows, while people ran frantically out of their houses to avoid being shot. Kəobawä managed to disarm him and hide his weapons.

During the several club fights that took place while I was in the field on my first trip, K̄obawā stood by with his bow and arrows to make sure that the fighting was kept relatively innocuous (Figure 6.1). In one of the chest-pounding duels, he managed to keep the fight from escalating into shooting with arrows by making sure that everybody in his group took a turn in the fighting. (See Chapter 5 for a description of the fight.) On this occasion his group was being trounced by their opponents, largely because only a few of the men were doing all the fighting for K̄obawā's group. These men were forced to take several turns in rapid succession, while a large number of men stood by and watched. The fighters wanted to escalate the battle into a duel with axes, hoping to intimidate their opponents into conceding. K̄obawā quickly forced the idle men to participate in the chest pounding, thereby distributing the punishment a little more evenly and reducing the possibility of a bloodier confrontation.

After the duel was over, K̄obawā coolly discussed the fight with the leaders in the opponents' group, explaining that he did not intend to raid them unless they raided first. A number of men in the village, notably Hontonawā and some of his followers, shouted threats at the departing opponents that they would shoot them on sight should they meet again. Hontonawā frequently boasted like this, but rarely put himself in a position that was potentially dangerous. He later ran into a party of hunters from the above-mentioned group while he was leading a raid against the Patanowā-teri. Instead of shooting them on sight as he threatened to do (they could have shot back, as they were armed), he traded arrows with them and rapidly retreated. He boasted in the village how he had terrified these men. I later visited their village and learned that Hontonawā was the one who was terrified. They themselves continued to hunt, while Hontonawā fled for home.

K̄obawā's personality differs considerably from Hontonawā's. Where the former is unobtrusive, calm, modest, and perceptive, the latter is belligerent, aggressive, ostentatious, and rash. K̄obawā has an established status in the village and numerous supporters, whose loyalties are in part determined by their kinship ties and in part because he is a wise leader. Hontonawā is attempting to share in the leadership and does not have a well-established position in this respect. It is obvious who the real leader is: When visitors come to Upper Bisaasi-teri, they seek out K̄obawā and deal with him, no matter how ambitiously Hontonawā attempts to emulate his position. Hontonawā does not have as many living brothers in his group as K̄obawā has, so his 'natural following' is somewhat limited. In addition, two of his brothers are married to actual sisters of K̄obawā and have some loyalty to him. Hontonawā, therefore, has very little means with which to establish his position, so he is given over to using bluff, threat, chicanery, and treachery. This he does well, and many of the young men in the village seem to admire him for it. He has gained the support of some of these men by promising them his wives' yet *unborn* daughters. Remarkably enough, some of them cling to these promises and do his bidding. He is, in short, a manipulator.

Finally, one of K̄obawā's most unpleasant tasks is to scout the village neighborhood when signs of raiders have been found. This he does alone, since it is a dangerous task and one that is avoided by the other men. Not even Hontonawā participates in this. It is for this reason that a surprisingly large number of headmen are killed by raiders: They are exposed to more risks than most men.

K̄obawā has definite responsibilities as the headman and is occasionally called upon by the nature of the situation to exercise his authority. He is usually distinguishable in the village as a man of some authority only for the duration of the incident that calls for his leadership capacity. After the incident is over, he goes about his own business like the other men in the group. But even then, he sets an example for the others, particularly in his ambitions to produce large quantities of food for his family and for the guests he must entertain. Most of the time he leads only by example and the others follow if it pleases them to do so. They can ignore his example if they wish, but they turn to him when a difficult situation arises (Figure 4.4).

SOCIAL STRUCTURE

One learns, after many months of living with people such as the Ȳnomamö, that there are 'abstract' rules and principles they can invoke to explain or justify the social interactions in which they participate. It is difficult to explain precisely how a fieldworker acquires this knowledge, for it is a gradual process. It is very much as we learn the 'rules' in our own culture. Most of us cannot, for example, explain precisely how it is that we came to 'know' that having sex with a sister or brother is 'bad', but almost all of us know that it is. But anthropologists are aware, when they go into the field to study tribal societies, that there are usually 'rules' about proper behavior and that these rules are often phrased in the contexts of (a) kinship, (b) descent, and (c) marriage. We therefore at least know where to begin looking for the

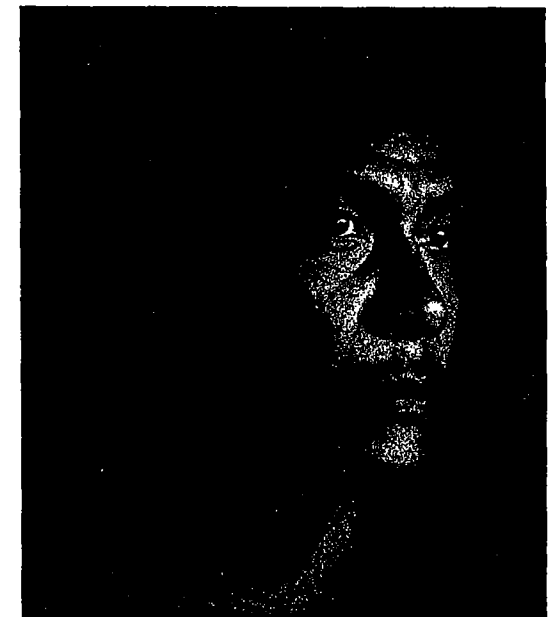


Figure 4.4. K̄obawā, the quiet, unpretentious headman of the Upper Bisaasi-teri.

'rules' and 'principles', even if we cannot always say precisely how it is we 'learned' what they were. One such rule, for example, is about 'who you should marry'. It was difficult for me to get the Yānomamō to state this in some sort of abstract way as a general 'principle' or 'rule'. I had to establish the 'rule' in a more indirect way, such as asking individual men, 'Can you marry so-and-so?' The answers, when pieced together, allowed me to formulate a general rule that they themselves take to be so self-evident that they can't imagine that others do not 'know' who to marry. Answers to that question would take the form, for example, of, 'What? No! I can't marry so-and-so! She is my *yuhaya* (daughter of my child or sister; granddaughter)!' Or, 'No! She is my *tāya* (daughter; brother's daughter)!' Eventually, I learned all the kinship terms that both men and women used for their kin and who among them was a prohibited spouse. I also learned, in this fashion, that men could marry only those women they put into the kinship category *suabōya*. By collecting genealogies that showed who was related to whom in specific ways, it was then possible to specify any man's 'nonmarriageable' and 'marriageable' female kin. As it turned out, men could marry only those women who fell into the category of kin we would call 'cross-cousins.' These are, from a man's point of view, the daughters of his mother's brother or the daughters of his father's sister. Figure 4.5 shows the difference between 'cross-cousins' and 'parallel cousins.' The rule, therefore, is that the Yānomamō marry bilateral cross-cousins. Bilateral means 'both sides,' that is, father's *and* mother's side of the family. From their vantage, therefore, one of their marriage rules is, 'Men should marry their *suabōya*.' In a very real sense, this is like saying 'We marry our wives,' for men call their wives and their female cross-cousins *suabōya*. Thus, to ask, 'Whom do you marry?' seems somewhat peculiar to them. They marry their wives, as real people are supposed to do.

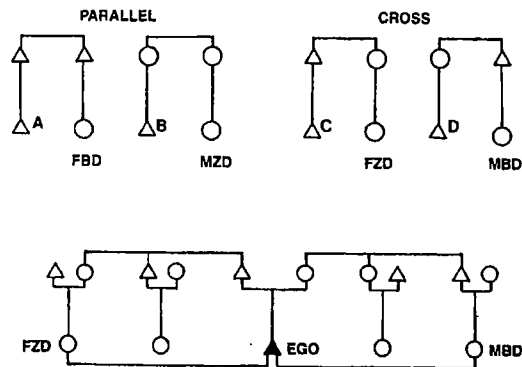


Figure 4.5. In Yānomamō society, men may marry their FZD or their MBD—their cross-cousins. They may not marry their FBD or the MZD, who are parallel cousins and classified as 'sisters'. The upper half of the diagram shows parallel and cross-cousins and the relationship of men (A, B, C, and D) to the female cousins. The bottom half shows an 'egocentric' kinship and how the four female cousins are traditionally diagrammed.

The interesting fact here is that this 'marriage rule' is embedded in the kinship terminology itself as well as existing as a 'principle': Men marry women they call *suabōya*. Their kinship system literally defines who is and who is not marriageable, and there are *no* terms for what we would call 'in-laws'. In a word, everyone in Yānomamō society is called by some kinship term that can be translated into what we would call 'blood' relatives. To be sure, they 'extend' kinship terms to strangers who are nonkin. Kāobawā calls Rerebawā by a kinship term, but they are not related. The fascinating aspect of their society is that all neighbors are some sort of kin and therefore social life takes place in a kinship matrix. Nobody can escape it, not even the anthropologist. Kāobawā, for example, calls me *hekamaya*—nephew (sister's son). Rerebawā calls me *aiwā*—older brother. Everyone gets placed into some sort of kinship matrix which, to a large degree, specifies 'in principle' how one is expected to behave vis-a-vis his or her kin of specific categories. Both Kāobawā and Rerebawā *know* I am not their sister's son or older brother respectively, but I must necessarily be put into *some* kinship category so that a general basis of proper and expected social behavior exists. To be outside of the kinship system is, in a very real sense, to be inhuman or nonhuman: real humans are some sort of kin. It is in this sense that anthropologists say that primitive society is, to a large degree, organized and regulated by kinship. Let me illustrate how 'kinship' dictates the expected forms of behavior in which you should engage by giving two somewhat humorous examples. The Yānomamō consider it very inappropriate to be familiar with the mother of the woman you may marry or have married. Indeed, they describe it as *yawaremou*: incest. Men should not look into the faces of their mothers-in-law, say their names, go near them, touch them, or speak to them. On one occasion I was mapping a deserted village with two young men who had remained behind to help me. As we proceeded around the village in our work, we came to a hearth. One of the young men walked out to the middle of the village, took three or four steps in the direction we were headed, and returned and stood on the other side of the abandoned hearth. When I asked why he did such a strange thing, the other whispered embarrassedly into my ear: 'His mother-in-law lives there!' They both then blushed. I decided, some time later, to have some 'fun' with this taboo. Their word for 'mother-in-law' is *yaya*, but the same kinship term also means 'father's sister' or 'grandmother,' women you need not avoid to the same degree. While visiting my wife's family in northern Michigan one year I deliberately took a photograph of me hugging my wife's mother, kissing her on the cheek. On my next field trip I brought this photo, along with many others of my family and wife's family, to the field. I showed them to Kāobawā's people. They were fascinated with them. Eventually I got to the photo of me hugging my mother-in-law. They recognized me and asked: 'Who are you hugging?' I responded: 'My *yaya*.' Some chuckles and giggles followed. Then one of them asked: 'Is she your father's mother?' 'No.' I casually replied. (It is alright to be somewhat familiar with a grandmother.) 'Ahh! She must be your mother's mother!' I again nonchalantly said 'No.' Murmurs and whispers followed, and their amused smiles changed to intense looks of apprehension. There was only one legitimate choice left: 'Ahh. She is your father's sister!' I paused before I answered, extending the suspense and, again, nonchalantly said 'No, she's my wife's mother.' Howls of

embarrassed laughter and protests exploded from the group. They were incredulous at my audacity and flagrant violation of the incest avoidance prohibition . . . and even more so at carrying around photographic evidence of my misdeed. For several years after, visitors from distant villages would come to my hut and beg to see the photograph of me 'committing incest' with my wife's mother . . . as if it were something intensely pornographic.

The 'discovery' of one principle often helps you to identify and understand other principles. I knew, for example, that they had warm affectionate attitudes about men that they called by the term *shoriwā*. These men, it turns out, are brothers of the women you have married, will marry, or could marry—they are also your male cross-cousins. Similarly, the easily detected warm relationship of a man to his mother's brother (Figure 4.6) is also comprehensible in terms of the marriage rule: You can marry his daughter.

These general rules or principles also exist for notions of descent from remote, long-deceased ancestors—and are discovered by the anthropologist in essentially the way just described for 'discovering' kinship rules. For the Yānomamō, descent through the male line is more important than descent through the female line, especially as regards general principles of marriage. Patrilineal descent defines as members of one group—called a patrilineal lineage (or, simply, patrilineage) all those individuals who can trace descent through genealogical connections back to some male ancestor *using only the male genealogical connections*. Figure 4.7 (page 142) shows a patrilineage and who 'belongs' to it. The general Yānomamō rule about marriage, insofar as it can be phrased in terms of a descent rule, is simply that everyone *must* marry outside of his or her own patrilineal group. The Yānomamō patrilineage is, therefore, an *exogamic* group: All members must marry outside of it into a different patrilineage. Kaobawā is in a different patrilineage than Bahimi, who is his cross-cousin. In Yānomamō society, one's cross-cousins will always belong to a different lineage but parallel cousins will belong to your own lineage.

An 'Ideal' Model of Yānomamō Society

Structural anthropologists, such as Levi-Strauss, are fascinated with the 'models' that can be drawn to represent, in shorthand fashion, the social structure of individual societies. They use as the basis of the 'models' or 'structures' abstract rules or principles of the sort just described: rules about kinship, descent, and marriage. One can use such models as beginning points to make more detailed observations about other social phenomena, or one can compare the ideal models themselves. These models, in the analogy given at the beginning of this chapter, are the 'symmetrical shells' that are pleasant or even pleasurable to manipulate and consider.

Figure 4.8 (page 142) gives the ideal model of Yānomamō society, based on their 'general principles' of patrilineal descent, bilateral cross-cousin marriage and the classification of bilateral cross-cousins as 'wives'. The model is at once elegant and incorporates all of the important 'rules'. It shows, in effect, that Yānomamō society can be ideally represented as being bifurcated into two intermarrying 'halves' or 'moieties'. One half, the Xs, gives women to the other half, the Ys, and receives in return the women that they will marry. Each person belongs to the patrilineage of his or her father, and all men are marrying women who are



Figure 4.6. Ariwari being fondled by his mother's brother, a very special kinship relationship among the Yānomamō.

simultaneously their Father's Sister's Daughters (hereafter FZD) and their Mother's Brother's Daughters (hereafter MBD). Such models are heuristic and useful, suggesting additional lines of inquiry for field research, and stating simple principles that let the observer take a 'holistic' view of the social organization.

Such models can be used, in turn, to phrase other general questions and summarize other social processes, such as village fissioning. Consider how this kind of model can elegantly represent the fissioning of a larger Yānomamō village into two smaller ones, as shown in Figure 4.9 (page 143). Village A contains two

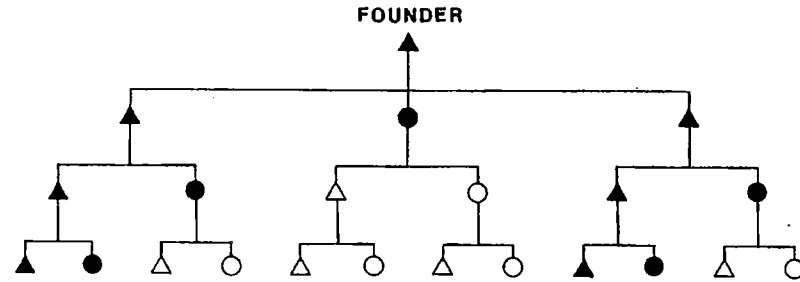


Figure 4.7. A patrilineage: Members are indicated by solid coloring and belong to the patrilineal descent group of their fathers.

patrilineages, X and Y, each subdivided into four 'cadet' sublineages, 1, 2, 3, and 4. For purposes of simplicity Figure 4.9 shows only the male members. You might want to assume that for each 'triangle' representing a male there is also an unwritten "circle" to represent a female—the sisters. In Village A, the cadet lines of both lineages that are drawn opposite to each other exchange marriageable females: X-1 gives its females to Y-1 and gets females in return from them. In fact, the marriages are arranged by these 'cadet' segments for the younger males and females in them: Older brothers and the father are *said to* make arrangements to give their sisters and daughters to men in the 'cadet' segment of the opposite lineage (see below). Theoretically, any male of lineage X can marry any female of lineage Y, but past marriage exchanges tend to keep particular cadet lines 'bound' to each other in a long-term obligation to exchange only their own females with each other. Notice also that the cadet lines 1 and 2 are genealogically 'closer' to each other than either is to cadet line 3 or 4. Patrilineal descent, plus the Yānomamō kinship classification

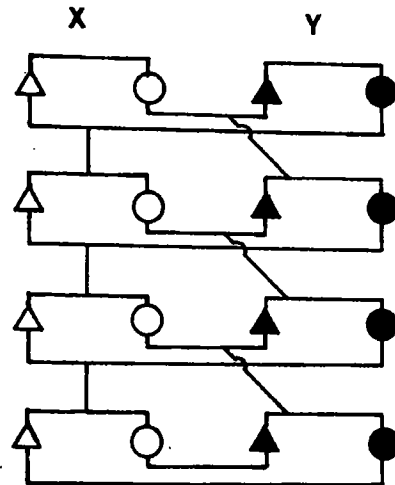


Figure 4.8. 'Ideal' model of Yānomamō social structure, showing two lineages (X and Y) that exchange marriageable women. Each man marries a woman who is simultaneously his MBD/FZD.

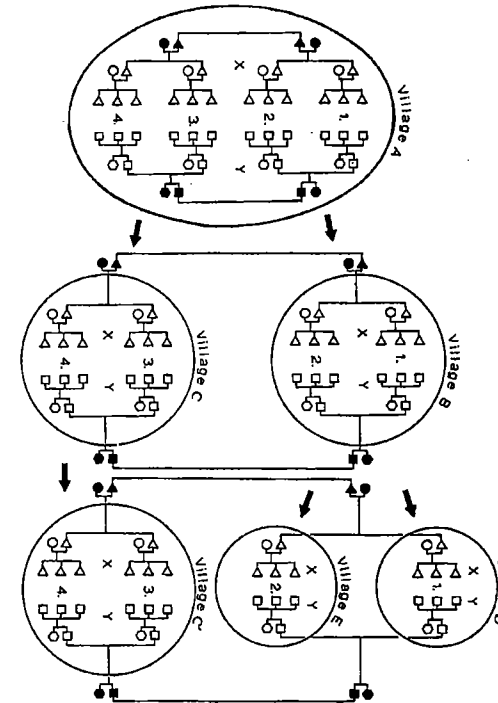


Figure 4.9. How local descent groups 'pair' with each other and remain bound when larger villages fission into smaller ones. In this fashion, larger lineages (X and Y in this diagram) are distributed among several villages (D, E, and C' in this diagram).

system, would require all men of the same generation in the same lineage to call each other by 'brother' terms. But the men in cadet line 1 of lineage X are 'actual' brothers (they have the same father) to each other, whereas the men in cadet line 4 of lineage X are their distant (parallel) cousins but men they would have to classify as brothers in their kinship system. They are, as the diagram is drawn, second cousins. They are, in a very real sense, *competitors* with them for all the marriageable women in the opposite lineage. Whereas actual brothers are cooperative, 'distant' brothers (parallel cousins) are competitive. A good deal of the competition can be nullified by faithfully giving your sisters and daughters to the men in the cadet lineage with whom your immediate group members have traditionally exchanged women.

As Village A grows in size, internal conflicts will increase among its members and it will eventually fission into two groups: Villages B and C. Notice how, in the diagram, the cadet lines 1 and 2 of lineages X and Y remain together in Village B and separate from their distant cousins, who go into Village C. Each new village contains members of both lineage X and lineage Y, and the cadet lines are still

'bound' to each other by marriage ties. In this fashion, the members of a lineage are distributed in several villages. Kəobawā, for example, has 'brothers' in Lower Bisaasi-teri, Monou-teri, and Patanowā-teri; but they are, in fact, his 'parallel cousins'. His actual brothers are in his own village; the model shown in Figure 4.9 helps make clear, in 'ideal' terms, how this comes about. Over time, Village B fissions, producing two new villages, D and E, as shown in Figure 4.9. Village C continues and does not fission.

Figure 4.9 summarizes, in ideal terms, some of the important rules and processes that can be documented in Yənomamö culture. It does this clearly and efficiently and enables us to get a good overall picture of how their social system 'works' in ideal terms. Like Figure 4.8 above, it simplifies a great deal of otherwise confusing information by ignoring what *particular* individuals did in their marriages or what the actual lineage composition of *specific* villages is. The particulars of what individuals do in marriage or how actual villages are comprised in terms of descent group membership is, in the oyster analogy, the basis of the *statistical* representations that can be drawn.

It is to these kinds of 'statistical' data that we will now turn. It is important to point out beforehand that very different kinds of field research *could* be entailed in the two different approaches. It is, for example, quite possible for a field researcher to do a 'structural' analysis of information provided by a few key informants or even a single informant. In fact, this situation is often unavoidable, particularly when a formerly large tribe has been reduced to a small population by epidemics and where the demographic underpinnings of social organization have all but disappeared or have been destroyed. This would be similar to the problem faced by an archaeologist who finds the 'parts' of a broken clay pot, but most of the parts are missing. His task is to try to 'estimate' or reconstruct the nature of the larger, whole, original pot but has only a few fragments to work with.

But where there are large numbers of people and where the ravages of epidemics and acculturation have not yet had a marked effect on tribal social organization, a 'statistical' approach is not only possible but highly desirable and can be conducted simultaneously with a structural study. This usually entails a more thorough and exhaustive collection of genealogical data, actual marriages and marriage dissolutions, and the reproductive histories of both males and females. The first chapter of this case study described some of this kind of field research, and the material that follows shows why I collected these details in the first place.

THE DEMOGRAPHIC BASIS OF SOCIAL BEHAVIOR

I will illustrate the 'statistical' approach by focusing on the question of *solidarity* as it relates to the process of village fissioning. Anthropologists have long been concerned with the problem of 'social solidarity'. The famous French anthropologist Claude Levi-Strauss dealt with this issue at great length in this now classic 1949 work, translated from French to English as *Elementary Structures of Kinship*, taking up themes on solidarity and reciprocal exchanges developed by his predecessors Marcel Mauss (1925) and Emile Durkheim (1938 [1895], 1933 [1893]) and applying them to kinship and marriage patterns that were commonly found in the primitive

world. The arguments can be thought of as essentially what provides the 'binding force' or 'cohesion' in primitive societies, the 'attraction' between both individuals and groups of individuals that permits them to live together amicably in large groups. One might think of 'solidarity' as the 'social glue' that holds groups together.

Yənomamö village fissioning can be viewed in this context, for they grow to a certain size and then fission into smaller, more cohesive villages—they come 'unglued.' One might even think of the process of village growth and fissioning as the 'failure' of solidarity in a certain sense, for the forces or principles that keep its members together in cooperative wholes fail to do so beyond a certain size limit. While there are many variables that affect village size—ecological, demographic, military, and social—much of the internal cohesion in Yənomamö villages is generated through kinship relationships, marriage ties, and the charisma that particular individuals, such as Kəobawā, contribute to social amity and organization (Chagnon, 1975b).

Let us look at actual marriage patterns in a statistical way and try to relate this evidence to the problem of explaining why particular Yənomamö villages are able to grow to a large size—300 or more people—while others seem to be unable to grow beyond a size of 125 or so people. The overall pattern of village size is as follows. The cluster of villages to which Kəobawā's belongs differs from the cluster of Shamatari villages to the south in several important ways. In Kəobawā's area, his village and those to which his is related historically and genealogically (the Namowei-teri villages; see Figure 2.16 of Chapter 2 and discussion) seem to fission at a lower size limit than the Shamatari villages. Could it be that there is something about the patterns of marriages in the two groups of villages that helps explain this difference? If so, what do you look for in marriages?

This question is actually an extension of one of the major questions posed by Levi-Strauss, who argued that *whole systems* of marriage were, as systems, capable of greater or lesser ability to promote solidarity (1949). The Yənomamö 'system' described in the previous section of this chapter was one of the three major systems discussed by Levi-Strauss, but one that he dismissed as being as 'inherently' capable as some other systems of marriage of promoting social cohesion and solidarity.

Let us convert Levi-Strauss' remarkable and heuristic argument to a different form: Instead of considering the *whole* system, let us examine the specific types of marriages *within the specific system*. This, more or less, is arguing something like that each individual marriage adds some 'glue' and contributes something to holding the village together. Thus, Kəobawā married his first cross-cousin, Bahimi, and this marriage can be thought of as providing a little 'glue' to the cohesion of Upper Bisaasi-teri. Rerebawā married Shjhotama, totally unrelated to him, and probably added less 'glue' to the cohesion of the village because it didn't 'tie' already present families closer together. Other men in the village had other marriages, each of which can be examined in genealogical detail, etc. Such an approach allows us to see if there is a different kind of marriage pattern within Shamatari villages than within Namowei-teri villages. Both groups have the same *overall* system or set of rules, but individuals within them may either use them differently

or are better able to marry specific kinds of cousins simply because they have more of them to begin with.

Such an exhaustive statistical examination requires the use of the computer. I did this. I coded all of the genealogical, marital, and reproductive data that I collected in the field in all the villages I studied. Each individual is an 'Ego' about which some 20 different pieces of quantitative information are known, such as approximate year of birth (hence, age), birthplace (garden where born), mother's name, father's name, names of all spouses, order in which spouses were married, how many children Ego had by each spouse, village of residence of every Ego if alive, or place of death for each Ego if dead, and so on (Chagnon, 1974). The computer searches each Ego's relationships and builds up an exhaustive genealogy or pedigree from the field data provided to it. It compares Ego to his or her spouse and spells out precisely all genealogical connections if any exist, that is, tells precisely how each person is genealogically connected to his or her spouse. The reciprocal marriage exchanges described above in elucidating the 'ideal' model usually result in spouses being related to each other in many complex ways, as is the case in Figure 4.10, which shows the marriage of one man to two women. Table 4.1 describes the genealogical connections for these two marriages. This example immediately reveals a problem that has to do with classifying particular consanguineal marriages, for each 'relationship loop' in the example specifies a kind of cross-cousin relationship between the man and his wives. Thus, it is difficult to characterize this man's marriages as examples of 'FZD' or 'MBD' types, for each marriage is both. Each 'relationship loop' might, in the phraseology I am using here, contribute some 'glue' to the system, and a marriage with four or five consanguineal loops between the spouses might represent more 'glue' than a marriage in which only one loop can be shown, since the former kinds of marriages result from systematic exchanges between 'families' over several generations and the latter imply fewer such exchanges and obligations.

Most Yąnomamö marriages raise the same general problem, a methodological question that is real and important, but one that is beyond the scope of this case study. Here, we will simply focus on the numbers and kinds of connections between related spouses to get the general picture of patterns in the Namowei-teri and Shamatarı villages.

Figure 4.10. Genealogy of a man's relationships to two wives. See Table 4.1 for the genealogical specifications.

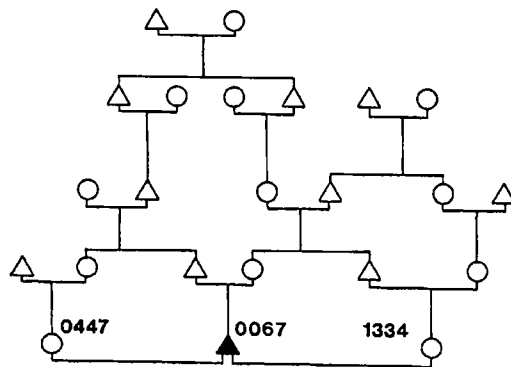


Table 4.1. GENEALOGICAL SPECIFICATIONS OF EGO 0067 TO HIS TWO WIVES, EGOS 0447 AND 1334. Ego 0067 is genealogically related to wife 0047 4 different ways and to wife 1334 six different ways. By Yąnomamö classification rules, each of these genealogical specifications would require that Ego 0067 call both women by the term meaning 'wife', i.e., 'female cross-cousin.'

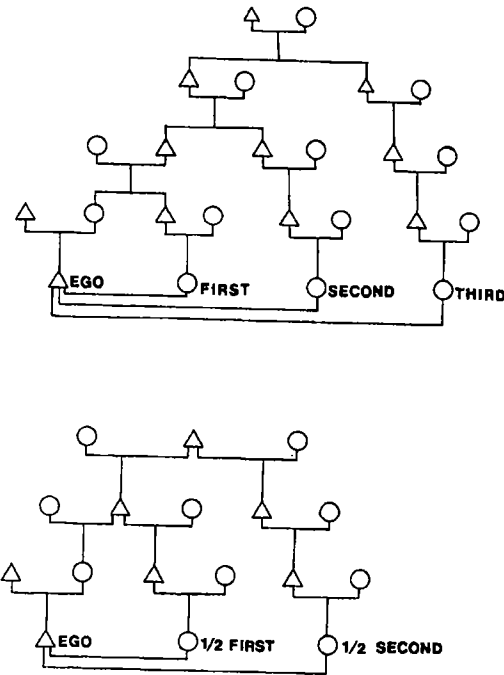
Spouse	Genealogical Relationship to Ego 0067
0447	FFDD FMDD MMFMSSDD MMFMSSD
1334	MFSD MMSD MFFDDD MFMDDD FFFFSDSD FFFMSSDSD

The 'ideal' model presented above (Figure 4.8) represents each man as marrying a woman who is simultaneously his MBD and FZD. In actual practice, this rarely happens, largely because of physiological and demographic reasons to be raised in the next section. What *does* happen is that men marry women who are sometimes FZDs or sometimes MBDs. However, there are many different types of both if you consider the precise genealogical connections between spouses: 'ideal' models show only 'ideal' genealogical relationships in most cases. Figure 4.11 gives some illustrations, showing how *half-relationships* between siblings and degrees of remoteness of cross-cousins can combine and yield a variety of cross-cousins that are 'FZD' and/or 'MBD' to the male Ego (only matrilineal cross-cousins are illustrated in Figure 4.14).

It is these possible permutations and combinations that I have in mind when I speak of 'patterns' or 'types' of marriage within the general Yąnomamö system of marriage with Bilateral Cross-Cousins. Does a marriage between a man and his FFDD contribute more 'glue' to the cohesion of the village than a marriage between a man and his MMMFMSSDD? Both are 'cross-cousins' to the men in question, but one of them is a 'closer' cross-cousin than the other. The question, then, is about the relative frequency and distribution of some of these types in actual Yąnomamö villages and whether or not Shamatarı villages have more or fewer of certain of the types compared to Namowei-teri villages.

I had the computer look at all the genealogical connections between spouses in the villages of interest. Figure 4.12 presents one of the results, the comparison of marriage types for both the Shamatarı villages (pooled together) and the Namowei-

Figure 4.11. Degrees of cousinship and half cousinship. The upper portion shows how first, second, and third cousins are genealogically related to Ego; the lower half, how half-first and half-second cousins are related to Ego. In Yqnomamö marriage, all these relationships would be classified, simply, as 'cousins' and marriages with them would be legitimate. The main point is that the term 'cousin' does not mean only full first cousin but includes larger numbers of more remote cousins.



teri villages (pooled together), giving the distributions of all of the 'genealogical loops' between men and all of their spouses. In other words, it is not the distribution of individual marriages, but the distribution of the total number of relationship types for all marriages. Let me explain what this means. The marriage of Ego 0067 to his two wives discussed above is represented in this distribution as 10 different types, not as just two individual marriages, i.e., all 10 are included in Figure 4.12. It is the overall pattern that is of interest here, simply to get a broad view of differences between the two populations in the types of connections men have to their wives.

What emerges in Figure 4.12 is that marriages in the two populations follow markedly different patterns. In the Shamatarı villages, men tend to be more often related to their wives as first cross-cousins of both the FZD and the MBD types than are men in the Namowei-teri villages. The Shamatarı men are marrying closer cross-cousins. This logically means, of course, that they marry proportionately fewer second or third cross-cousins. What is suggested by these data is that the maximum size to which a village might grow could somehow be related to the fact that men in those villages tend to marry 'close' cousins more often than do men in Namowei-teri villages. A whole series of reasons why this might be true can be raised, but most of them are demographic in genre. One reason, not demographic, is that men might be 'trying harder' to marry close cross-cousins in the Shamatarı village, but this essentially means that their parents, who arrange the marriages, are

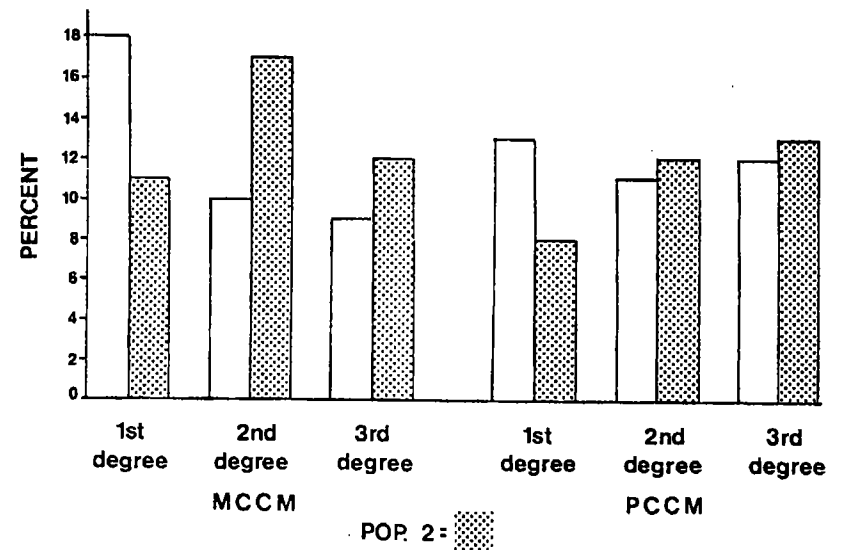


Figure 4.12. Distribution of frequencies of cross-cousin marriage by degree (first, second, and third cousins) and laterality (matrilateral and patrilineal) for all marriages among living adults in the Shamatarı (Population 1) and Namowei-teri (Population 2) villages. Shamatarı men marry their full first cross-cousins more often than do Namowei-teri men—on both sides of the family (patrilineal and matrilateral).

actually the ones who are 'trying harder'. This, in turn, comes to a question of how and to what extent the members of local descent groups enter into and continue reciprocal marriage exchanges over several generations. Thus, the question of 'trying harder' to 'follow the rules' is actually a much more complex question. In fact, all men 'try hard' to find a wife and most men are delighted if they get any at all, and in this sense, they cannot be plausibly viewed as 'trying to follow the marriage rules'. If anything, as we shall see in a moment, they can more properly be thought of as trying to break the marriage rules when the rules get in the way—as they do. The frequency distributions seem most plausibly to be a major consequence of the demographic attributes with which each village begins its career, the role that polygynous marriage plays in generating a 'genealogical' pattern that is conducive to high frequencies of cross-cousin marriage of various types, and the strategies individuals use to give women to men in particular other groups as a means of making sure that they will get at least some women back for their brothers and sons.

Polygyny, Genealogical Structures, and Close Kinship

The main point I wish to make in this section is that it is easy to marry a cross-cousin if you have a lot of them to choose from, and the more polygyny there is, the more cross-cousins there will be. More precisely, if some men are particular-

ly successful in obtaining many wives, their male grandchildren will have large numbers of cross-cousins who will be potential marriage partners.

Polygyny in a society with patrilineal descent has very different consequences for social organization than polyandry in a society with matrilineal descent: One man with 10 wives can have many more children than one woman with 10 husbands. These physiological differences have profound implications for understanding lineage size and interlineage marriage exchange practices in societies like the Yānomamō.

There was a particularly accomplished man in the Shamatarī population several generations back named 'Shinbone.' Some of his children are still alive today, so he is still remembered by many people who knew him personally. Shinbone had 11 wives, by whom he had 43 children who survived long enough for people to be able to recollect them. His children, of course, were all siblings or half-siblings to each other and therefore the males among them had many sisters to give away in marriage—in exchange for women they (or their sons) could marry. There were two or three other men like Shinbone around at the time, men with many wives and many children, but none rivaled Shinbone in reproductive performance. By entering into marriage alliances with these men and their sons, members of Shinbone's descent group became 'bound' to them in long-term marriage exchanges. If you consider how Shinbone's grandchildren are related to each other, it is clear that they are all siblings, half-siblings, or full or half-cousins of either the parallel or cross varieties. Thus, his grandchildren had many cross-cousins to 'choose' among as potential spouses and it was relatively easy for them to 'follow' the rules of cross-cousin marriage (Figure 4.13).

While there were some men in the Namowei-teri population who did very well at getting extra wives and, as a consequence, producing large numbers of children, none did nearly as well as Shinbone or some of his Shamatarī peers. In effect, the Shamatarī population had fewer male founders, but these 'founders' produced more children than was the case in the Namowei-teri population. Another way of saying this is that there are more lineages in the Namowei-teri population because there are more male founders. This, ultimately, is reflected in the lineal composition of villages and, therefore, the machinations of men who arrange marriages for their children. They can choose females from among a larger number of other lineages for future wives, but this results in the creation of more conflict and opportunism. In a hypothetical sense, if you belong to Lineage Y and got a girl from Lineage X several years ago for your son, you should continue to give your females to men in Lineage X. But if you have a son that needs a wife right now and Lineage X does not have one, there is a temptation to start 'trading' with some other lineage, like 'Z' if they have an eligible female. This means you have to then give a female back to the members of 'Z' in exchange. This gets the men in Lineage X angry. The more lineages there are, the more this is likely to happen. The long-term promises are often subverted by short-term opportunities that lead to conflict. In a formal and statistical sense, the best long-term game to play is to be faithful to your partners and remain bound to them, even if it means giving away more girls to them at any specific point in time than you get back at that point. An occasional alliance with another group can be 'sneaked in' from time to time, depending on specific

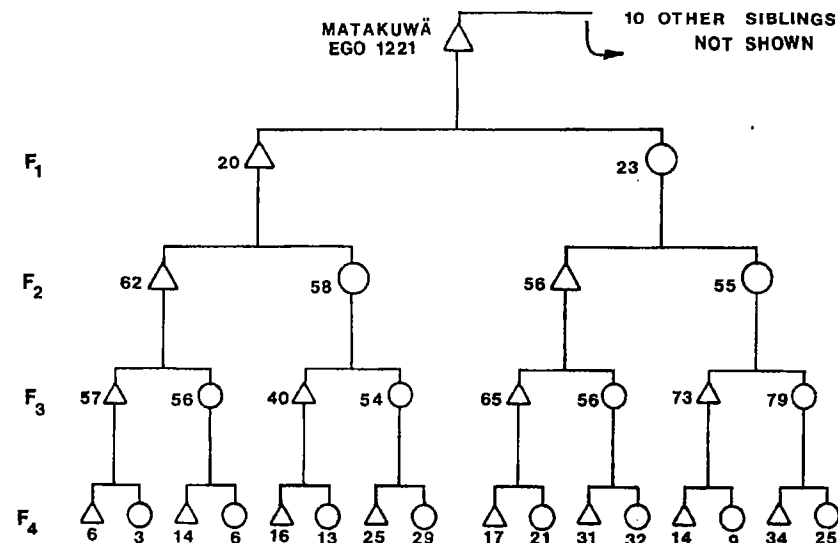


Figure 4.13. All descendants of 'Shinbone' (Ego 1221) grouped by sex. He had 20 sons and 23 daughters (F1 generation). The 20 sons in turn had 62 sons and 58 daughters, and so on. (Overlap in the F3 and F4 generations is not removed; descendants in generations F5 and F6 are not shown.)

situations and the charisma of the individuals involved. Some are better than others at pulling this off.

One consequence of the marriage-arranging relationships between members of the larger lineages such as Shinbone's is that villages become characterized by higher levels of what we would call 'inbreeding.' Marrying close cousins raises amounts of kinship relatedness between *all* individuals over time, increasing the level of 'inbreeding' each generation. The computer procedures described above to show how spouses are related can be used to show how *any pair of individuals* is related. As might be expected, the Shamatarī villages also differ from the Namowei-teri villages in patterns of relatedness; Individuals have more relatives and are more closely related to their relatives than is the case in Namowei-teri villages. This is of great interest to anthropologists, particularly in the context of theories of solidarity. Some anthropologists argue that kinship, rather than marriage alliance, provides the solidarity and amity that keeps societies organized by lineal descent cohesive whereas others insist that it is the marriage bonds between the lineages—the so-called 'alliance versus descent' argument between Edmund R. Leach (1957) and Meyer Fortes (1959; see Keesing, 1975, for an overview of some of the arguments) and other prominent anthropologists.

When you examine how every individual in the village is related to all others, using the computer procedure described above, the results clearly show that members of the Shamatarī villages are, on average, more closely related to each other than are members of Namowei-teri villages, i.e., Shamatarī villages are more 'inbred.' Translating this into the kinds of arguments made by anthropologists about

solidarity, if solidarity is promoted by kinship *closeness*, then more 'inbred' villages should have more solidarity. They achieve this by marrying cross-cousins.

This makes it difficult to decide which theory is more correct regarding the source of solidarity. Does it come from close cousin 'marriages' that bind descent groups to each other or from the close 'kinship' ties that cousin marriage produces via the offspring who are related to members of both groups? While these are fascinating issues in cultural anthropology, they go somewhat beyond what introductory courses—and monographs like this—traditionally focus on. I have, however, discussed some of these issues in more technical publications (Chagnon, 1974; 1975b; 1979a; 1979b; 1980; 1981; 1982; 1988b; Chagnon & Bugos, 1979.).

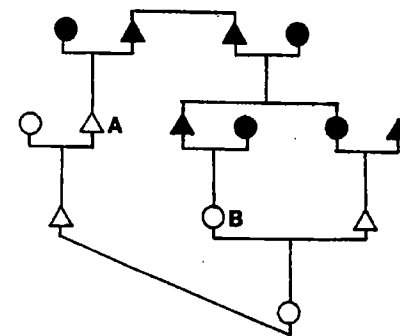
In summary, villages that get large seem to be able to do so, in part, because of the kinds and frequencies of particular consanguineal marriages. These set into motion increasing levels of 'inbreeding,' i.e., average degrees of relatedness between all individuals gets higher. Using statistical procedures borrowed from the field of population genetics and computers makes it possible to discuss these issues in very precise metric terms and make statistical statements about 'closeness' of kinship. But, kinship relatedness, patterns of marriage and obligations based on descent seem to break down as solidarity-promoting mechanisms and villages seem to be unable to get larger than about 300 people before they fission into smaller ones. There is enough intermarriage between villages and abductions of women from different groups to 'swamp' the effects of close inbreeding, so the process is not strictly cumulative over time.

Kinship Rules, Reproduction, and Rule Breaking

I mentioned above that many Yānomamō break their rules, especially kinship and marriage rules. Ideal models are often criticized for seeming to imply a 'static' system, one that doesn't change or have much flexibility. Statistical models builds in this possibility. The arena in which rule-breaking—the dynamics of marriage—is most conspicuous is incestuous marriage. Recall that Yānomamō men define only one category of women as marriageable. All others are prohibited, and sex or marriage with people in these categories is considered to be incestuous (*yawāremou*). Their definition of incest is broader than ours but includes our prohibitions as well. Let me give an example of how this comes about.

Figure 4.14 is an example of a case of incest that led to a fight in Kāḡobawā's village and, ultimately, to the fission of his group from the Lower Bisaasi-teri. The man marked 'A' is in Kāḡobawā's father's generation and, indeed, is called 'father' by Kāḡobawā—they are in the same lineage. 'A' is the headman of Lower Bisaasi-teri. This man had several sons and he wanted to find them wives. He cleverly redefined the woman labeled 'B' in the diagram as his 'sister,' thereby moving her up one whole generation. (He was supposed to call her by a 'niece' term, and did so most of his life.) Since she was now his 'sister,' his sons were eligible to marry her daughters—they were their father's 'sister's' daughters (FZD)—but in 'classification' only. One of them did marry one of her daughters as shown, thus leading to a big fight and a fission. The issue had to do with taking marriageable females out of the mate pool that other men were eligible to marry into, and they, of course, objected strenuously. Some people went along with the new kinship fabrication—

Figure 4.14. An example of an 'incestuous' marriage and manipulating kinship classification with matrimonial gain in mind. Ego A originally called B by the correct term meaning 'niece' but arbitrarily changed his classification of her to a term that meant 'sister'. This enabled A's son to marry B's daughter as shown since she was terminologically his 'father's sister's daughter'. A good deal of fighting and conflict resulted, for it removed A's daughter from the legitimate mate pool of other men.



those who had something to gain; others did not—those who had something to lose. The manipulator's son was the right age to marry his forbidden wife, who was also of marriageable age.

This example illustrates a problem of much larger proportions in Yānomamō society. Incestuous marriages, by the Yānomamō definition, are very common and are accompanied by manipulations of the kinship classifications of the kind just described. While the genealogical facts of who begot who cannot be changed, kinship classifications can, and a lot of Yānomamō do it. Much of it appears to be done in order to increase someone's chances of finding a wife in a situation where it is difficult for men to find wives (Chagnon, 1972; 1974; 1979a; 1982; 1988a; Fredlund, 1982; Saffirio, 1985).

The source of this problem lies, in large part, in the reproductive attributes and life histories of individuals. Women marry young and therefore begin producing children while young. But their reproductive lifespan is relatively short—20 years or so. Men marry later, begin producing later, but their potential reproductive lifespans are very long. Men such as Shinbone had children that differed in age by at least 50 years: one of my best Shamatari informants and closest friends was an old man named Dedeheiwā, about 65 years old at the time the following incident occurred in his village. A young girl of about 10 years passed by and called him by a term meaning 'older brother.' I asked him why she did so, and he said that they were, in fact, half-siblings. His father had many wives and early in life sired Dedeheiwā. Fifty or so years later he sired this little girl by a different wife (Chagnon, 1974).

One consequence of these facts is that generation length through females is relatively short compared to generation length through males. This can be seen in the reproductive statistics summarized in Figure 4.13 by looking at the number of Shinbone's current descendents in the F4 generation. There are only 9 (6 males plus 3 females) descendents through the direct line of males (extreme bottom left side of Figure 4.13) but 59 (34 males plus 25 females) through the direct line of females (extreme bottom right of Figure 4.13). The net result is that the absolute ages of individuals gets out of synchrony with their generational identities. People will have brothers or sisters that are younger than their grandchildren. Since Yānomamō kinship classifications utilize generational position, something must give. Girls are

ready for marriage at puberty and boys when they are in their early 20s. No right-thinking Yąnomamö would sit patiently for 50 years until his sister's daughter is old enough to marry one of his sons. What 'gives' is the kinship classification, which means that people *must* chronically re-classify some relatives in order to keep kinship classification more-or-less in harmony with ages and generational identities. They *must* break the kinship rules to make the actual marriage practices work (Chagnon, 1982; 1988a).

The Decay of the Nuclear Family

The more I thought about the necessity of rule breaking, the more it fascinated me and caused me to investigate it further. These investigations led me to think about another set of problems, demographic problems, and I will end this chapter with a brief discussion of these and what they mean for understanding not only Yąnomamö social organization and social behavior but probably what might be found in many other tribal societies and what probably has characterized *our entire history* as humans.

Yąnomamö mortality patterns and birth rates lead to a characteristic distribution of the population into age and sex categories represented in the 'age/sex' pyramid shown in Figure 4.15. Basically, there are many children because of a relatively high birth rate, but because of a relatively high death rate many children die before age 10, causing the step-like narrowing of the pyramid as each age-category is plotted. The biggest 'step' is the reduction in numbers of children, i.e., the step between the first (bottom) age category and the second one. Note, however, that the mortality rates are high enough at all ages to cause the 'steps' to be rather obvious and quite large. This means that many young adults are dying as well, albeit at a lower rate.

This distribution is characteristic for tribal populations all over the world where introduced diseases and other exogenous forces have not radically altered the demographic characteristics of the population—and this distribution has probably been characteristic of human populations throughout our history (Swedlund & Armelagos, 1976). One of the things that is *predictable* from this is that many children will be orphans at an early age because one or the other of their parents died prematurely (Chagnon, 1982). Many Yąnomamö children are 'orphans' for this reason.

Divorce also occurs among the Yąnomamö—at a rate of approximately 20% (Chagnon, 1988b), a low rate by world standards. This also contributes to the fact that children will be raised in households where one or both of the parents is not a biological parent.

What does this mean for understanding the Yąnomamö 'nuclear family'? Or, the 'nuclear family' throughout our long history as hunters/gatherers and tribesmen?

I examined the composition of households for a large number of villages that had approximately 1,400 people living in them and basically asked the following kinds of questions for each individual, i.e., had my computer 'ask' the questions: Is the mother alive and in the same village? Is the father alive in the same village? Are the biological mother and father both alive and living in the same village? etc. The

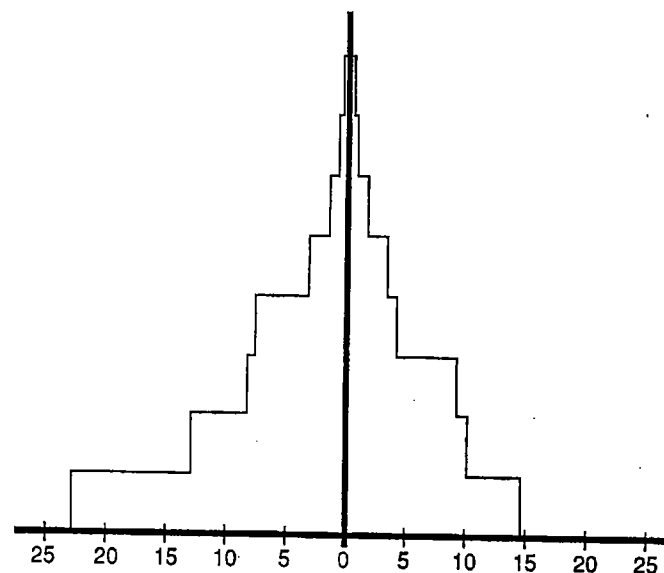
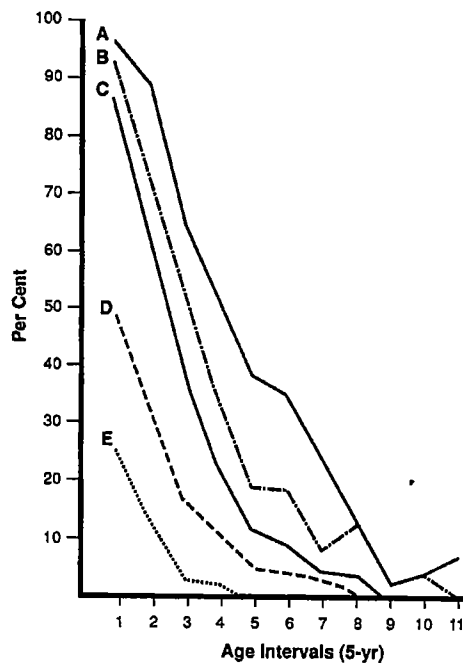


Figure 4.15. Age/Sex pyramid of an undisturbed Yąnomamö population by 10-year age categories. Males are on the left half and females on the right half of the diagram. Note the excess of males in the first age category: Approximately 23% of the population consists of male children aged 0 to 10 years, but only about 15% are female children in this age category. The general 'shape' of this distribution—very wide at the bottom and rapidly narrowing—is the result of relatively high birth rates coupled with relatively high death rates in younger age categories. This is the characteristic shape of the population pyramid for undisturbed native peoples and probably of all human populations until recent times. (Redrawn from Chagnon, 1974, Figure 4.6, N = 1466.)

statistical answers to these and similar questions are summarized in Figure 4.16, which shows the 'decay' of the Yąnomamö nuclear family by age categories, i.e., what fraction of people have a living mother, father, etc., at each stage in their lives.

The results surprised even me. Most textbooks in anthropology refer to the nuclear family as the 'fundamental building block' of all human societies, emphasize how important it is in understanding social ties, and how universal it is—dutifully noting that one or two societies like the Nyar seem to be unusual in not having a 'nuclear family' by most definitions. What Figure 4.16 indicates is that by the time a Yąnomamö reaches the ripe old age of about 10 years, only about one out of three live in a family containing his yet-married mother and father, and by the age of 20 years, only about one in ten comes from such a family! There are good reasons to believe that this has been true for most of our history. The so-called 'fundamental building block' of human society appears to have a very short half-life when it is viewed statistically.

Figure 4.16. The 'decay' of the Yąnomamö nuclear family over time. Percent of individuals of both sexes, arranged by 5-year age intervals, where (A) the mother is alive and co-resident, (B) the father is alive and co-resident, (C) both parents are alive, co-resident, and married either monogamously or polygamously, (D) both parents are alive, co-resident, and married monogamously, and have at least one grandparent alive and co-resident. N = 1327. By whatever definition of 'nuclear family' (C, D, or E), most Yąnomamö individuals do not live in such a family by the time they reach age 20 (age category 4). For example, only about 50% of Yąnomamö in age category 1 (birth to 5 years) live in a family of type D. By the time they are 15 years old (age category 3), only about 18% live in such a family. (Redrawn from Chagnon, 1982, Figure 14.6.)



The issues become more intriguing when we begin thinking about what this means for understanding marriage practices or marriage systems in many societies, especially those where it is said that the parents, particularly the father, of the young people arrange their marriages. Most Yąnomamö men, when they reach marriageable age (early twenties) do not have a living father. Who arranges their marriages? This raises yet other questions and, sometimes, acrimonious debate at fundamental levels of theory. For example, I would predict that if a man had a biological son and one he 'adopted' when he married a woman who had children from a previous marriage and it came time for him to arrange marriages for both, he would most likely be more interested in the reproductive future of his biological son over that of his 'adopted' son, especially if marriageable girls were scarce. Other anthropologists would argue that this is an unacceptable form of 'biological reductionism' and, as a matter of principle, suggest he would be equally interested in doing a good job in both cases. There is no meaningful evidence whatsoever to support the latter position and a considerable amounts of evidence to support the prediction I just made.

This scenario, perhaps laid bare for the first time by my research on the Yąnomamö, has implications for other aspects of tribal social organization and behavior, including kinship classification. For the reasons discussed above, the

Yąnomamö must chronically 'adjust' their kinship classifications to keep age and generation in synchrony. The statistical information on their 'nuclear family' organization suggests that most males, when they reach marriageable age, will not have their father around to help them find and secure a wife . . . and that they will have to rely on assistance from other adult males.

Given these two general and important facts, I was prompted to make some predictions about kinship and genealogical knowledge by sex and how the kinship reclassifications, i.e., 'rule-breaking,' might be patterned. The logic is as follows:

1. Men have difficulty finding wives because women are in short supply. If they cannot rely on having a living father, they must pay attention to who might be the males that will do this—and this means learning genealogies and kinship classifications thoroughly because this information is useful to their reproductive future. Yąnomamö men should, in short, know more about genealogies and kinship than women, something that is probably counter-intuitive to even anthropologists.
2. Women never have trouble finding husbands and are always (or almost always) married throughout their lives. No amount of additional effort to learn genealogies or kinship classifications will alter this.
3. If the kinship classifications have to be altered to keep age and generation in synchrony so the marriage systems 'work' and men can only marry women they classify as *suaböya*, then men should show a bias in their reclassifications: they should tend to move women from reproductively useless categories into the "wife" category if they are going to reclassify them.

In 1985 I did a very elaborate test of these ideas (most of the results are published in Chagnon, 1988b and briefly summarized here). In three different villages I had informants of both sexes and all ages tell me what kinship term they used for everyone in the village. To make sure we both knew who I was talking about, I simultaneously showed each informant a polaroid picture of each person as I whispered the name of that person into his/her ear and asked 'What do you call so-and-so?' I timed all their responses.

I also knew from many previous years of fieldwork in these villages how everyone was genealogically related back four or five generations, and knew what they should have called the kinsmen that were related to them in the specifiable genealogical ways if they were following their 'rules' of classification.

I did this with 100 informants of both sexes and all ages and got nearly 12,000 'kinship classification' responses, as well as a measure of the time it took each informant to classify all members of the village.

The results were as I predicted they would be. Males were faster than females at classifying their kin, suggesting that they knew more about genealogy and kinship than the females. They had the information 'at the tip of the tongue', but women and girls frequently had to do some genealogical algebra of the sort, 'Well, I call his father so and so and his sister such and such, so I suppose I'd call him "husband"'. This information also demonstrated that significant numbers of females in the village actually did not use specific terms for many co-residents, but used 'vague' terms that did not require genealogical knowledge of any depth.

When the kinship classifications of 'adult' males (17 and older) were examined, it was clear that they showed a statistically significant pattern of reclassifying women into the 'wife' category more than into any other category for female relatives: The bias was to move females from reproductively useless categories and put them into the only reproductively useful category, 'wife.' A detailed analysis of the women they moved into this category showed that most of these females were young and had high reproductive value, i.e., were not old women past their reproductive prime.

I learned a number of anthropological lessons by this rather elaborate exercise. One of them was that the 'kinship system' was very dynamic, not a crystallized set of terms each person learns for others and faithfully recites for the remainder of his or her life. People simply *had to* change their kinship usage to keep the marriage system working, since marriageability was defined in large measure by what kinship term you called people around you. The second lesson was that the frequent accusations that others in the village were or had 'committed incest' made more sense—marrying someone that, genealogically, was in an inappropriate category was, by definition, 'incestuous.' The third thing was that the initial manipulations were made by men who had great confidence that they could successfully 'break' the rules and find support among their friends and kinsmen, many of whom benefited from these acts and manipulations. Incest was, in a very real sense, a kind of political act that reflected the status and authority of the initiator. The intriguing question is whether or not this 'political' act was provoked, consciously or unconsciously, with reproductive gain in mind. The general result of many of these kinds of manipulations, however, seems to point to the fact that they generally have positive reproductive consequences.

Rerebawā once said to me, proudly predicting the future of Breakosi, his firstborn son. 'He is a real fierce little guy! So fierce that when he grows up he will probably commit incest!' What he was saying was that he would know the kinship rules and genealogies so well that if these got in his way he would break them and put someone into a marriageable category that didn't belong there . . . commit incest. You can only do this successfully and predictably in Yānomamō culture if you are prepared to defend your rule violations, and your ability to do so depends largely on how much credibility of threat you can demonstrate, i.e., how 'fierce' you are. The most flagrant cases of incest I have in my records—men marrying parallel cousins or, in one case, a half-sister—are cases of men who are not only headmen but headmen with reputations of 'ferocity.' Breaking the rules to gain some personal advantage is always easier in any culture if you have power—acquired or inherited. In Yānomamō culture it is partly acquired, via demonstrations of individual prowess, and partly inherited, by having lots of kin who will endorse your manipulations and rule-breaking.

Finally, something else made sense to me after realizing all of this. When I showed them the picture of me hugging my wife's mother, i.e., 'committing incest,' some would blurt out: 'Wow! You are really fierce!' I didn't understand, at first, why they equated 'incest' with personal prowess and tended to predict one from knowing the other. They probably invented all sorts of fabulous activities I must have engaged in to be in a position to get away with hugging my mother-in-law.