Eyes of the *Ngangas*: Ethnomedicine and Power in Central African Republic

People of the Third World have a variety of therapies available for combating diseases, but because of cost, availability, and cultural bias, most rely on ethnomedical traditional treatment rather than “biomedical” or Western therapies. Dr. Lehmann’s field research focuses on the importance of *ngangas* (traditional healers) as a source of primary health care for both the Aka Pygmy hunters and their horticultural neighbors, the Ngando of Central African Republic. Tracing the basis and locus of the *ngangas’* mystical diagnostic and healing powers, he shows that they are particularly effective with treatments for mental illness and, to an unknown extent, with herbal treatment of physical illnesses as well. The powers of the Aka *ngangas*, however, are also used to reduce the tensions between themselves and their patrons and to punish those Ngando who have caused the hunters harm. Lehmann points out the necessity of recognizing and treating the social as well as the biological aspects of illness and appeals to health care planners to establish counterpart systems that mobilize popular and biomedical specialists to improve primary health care in the Third World.

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Ethnomedicine (also referred to as folk, traditional, or popular medicine) is the term used to describe the primary health care system of indigenous people whose medical expertise lies outside “biomedicine” the “modern” medicine of Western societies. Biomedicine does exist in the Third World, but it is unavailable to the masses of inhabitants for a number of reasons. Conversely, although popular medicine has largely been supplanted by biomedicine in the Western World, it still exists and is revived from time to time by waves of dissatisfaction with modern medicine and with the high cost of health care, by the health food movement, and by a variety of other reasons. The point is, all countries have pluralistic systems of health care, but for many members of society the combat against the diseases that have plagued mankind is restricted to the arena of popular medicine.

This is particularly true in the developing nations, such as those of the sub-Saharan regions of Africa, where over 80 percent of the population live in rural areas with a dearth of modern medical help (Bichmann 1979; Green 1980). Between 1984 and the present, I have made six field trips to one such rural area (the most recent in 1994), to study the primary health care practices of Aka Pygmy hunter-gatherers and their horticultural neighbors, the Ngando of Central African Republic (C.A.R.).

The Aka and the Ngando

Several groups of the Pygmies live in a broad strip of forested territory stretching east and west across the center of Equatorial Africa. The two largest societies are the Mbuti of the Inturi Forest of Zaire and the Aka, who live in the Southern Rainforest that extends from the Lobaye River in Central African Republic into the People’s Republic of the Congo and into Cameroon (Cavalli-Sforza 1971). Like the Mbuti, the Aka are long-time residents of their region. It is on the edge of the Southern Rainforest in and near the village of Bagandu that the Aka Pygmies and the Ngando come into most frequent contact. The proximity, particularly during the dry season from December to April, allows for comparisons of health care systems that would be difficult otherwise, for the Aka move deep into the forest and are relatively inaccessible for a good portion of the year.

Since Turnbull described the symbiotic relationship between Mbuti Pygmies and villagers in Zaire (1965), questions remain as to why Pygmy hunters continue their association with their sedentary neighbors. Bahuchet’s work shows that the relationship between the Aka and the Ngando of C.A.R. is one of voluntary mutual dependence in which both groups benefit; indeed, the Aka consider the villagers responsible for their well-being (1985: 549). Aka provide the Ngando with labor, meat, and forest materials while the Ngando pay the Aka with plantation foods, clothes, salt, cigarettes, axes and knives, alcohol, and infrequently, money.

This mutual dependence extends to the health care practices of both societies. Ngando patrons take seriously ill Aka to the dispensary for treatment; Aka consider this service a form of payment that may be withheld by the villagers as a type of punishment. On the other hand, Aka *ngangas* (traditional healers) are called upon to diagnose and treat Ngando illnesses. The powers believed to be held by the *ngangas* are impressive, and
few, particularly rural residents, question these powers or the roles they play in everyday life in Central African Republic.

**Eyes of the Ngangas**

The people believe that the ngangas intervene on their behalf with the supernatural world to combat malevolent forces and also use herbal expertise to protect them from the myriad of tropical diseases. Elisabeth Motte (1980) has recorded an extensive list of medicines extracted by the ngangas from the environment to counter both natural and supernatural illnesses; 80 percent are derived from plants and the remaining 20 percent from animals and minerals.

Both Aka and Ngando ngangas acquire their power to diagnose and cure through an extensive apprenticeship ordinarily served under the direction of their fathers, who are practicing healers themselves. This system of inheritance is based on primogeniture, although other than first sons may be chosen to become ngangas. Although Ngando ngangas may be either male or female, the vast majority are males; all Aka ngangas are males. In the absence of the father or if a younger son has the calling to become a healer, he may study under an nganga outside the immediate family.

During my six trips to the field, ngangas permitted me to question them on their training and initiation into the craft; it became apparent that important consistencies existed. First, almost all male ngangas are first sons. Second, fathers expect first sons to become ngangas; as they said, “It is natural.” Third, the apprenticeship continues from boyhood until the son is himself a nganga, at which time he trains his own son. Fourth, every nganga expresses firm belief in the powers of his teacher to cure and, it follows, in his own as well. As is the case with healers around the world, despite the trickery sometimes deemed necessary to convince clients of the effectiveness of the cure, the ngangas are convinced that their healing techniques will work unless interrupted by stronger powers. Fifth, every nganga interviewed maintained strongly that other ngangas who were either envious or have a destructive spirit can destroy or weaken the power of a healer, causing him to fail. Sixth, and last, the origin and locus of the ngangas’ power is believed to be in their eyes.

Over and over I was told that during the final stages of initiation, the master nganga had vaccinated the initiate’s eyes and placed “medicine” in the wound, thus giving the new nganga power to divine and effectively treat illnesses. At first I interpreted the term vaccination to mean simply the placement of “medicine” in the eyes, but I was wrong. Using a double-edged razor blade and sometimes a needle, the master nganga may cut his apprentice’s lower eyelids, the exterior corners of the eyes, or below the eyes (although making marks below the eyes is now considered “antique” I was told); he concludes the ceremony by placing magical medicine in the cuts. At this moment, the student is no longer an apprentice; he has achieved the status of an nganga and the ability to diagnose illnesses with the newly acquired power of his eyes.

Not until my last field trip in 1994 did I witness a master nganga actually cut the whites of his apprentice’s eyes. At the end of an hour-long interview with an nganga, which focused on my eliciting his concept of disease etiology in treatment of illness, I casually posed the question I had asked other ngangas many times before: “Do you vaccinate your apprentice’s eyes?” The nganga beckoned his apprentice seated nearby, and, to my amazement, the apprentice immediately placed his head on the master’s lap. I quickly retrieved my camcorder which I had just put away! The master removed a razor blade from a match box, spread the student’s eyelids apart, deftly made five cuts on the whites of each eye, and squeezed the juice of a leaf (the “medicine”) into the wounds. This astounding procedure performed on perhaps the most sensitive of all human parts took less than a total of three minutes and did not appear to cause the apprentice any degree of pain, albeit his eyes were red and his tears profuse.

During the career of an nganga, his eyes will be vaccinated many times, thus, it is believed, rejuvenating the power of the eyes to correctly diagnose illness and ensure proper therapy. It is clear that the multiple powers of ngangas to cure and to protect members of their band from both physical and mental illnesses as well as from a variety of types of supernatural attacks reside in their eyes.

It follows that the actual divinatory act involves a variety of techniques, particular to each nganga, that allows him to use his powers to “see” the cause of the illness and determine its treatment. Some burn a dear, rocklike amber resin called paka found deep in the rain forest, staring into the flames to learn the mystery of illness and the appropriate therapy. Some stare into the rays of the sun during diagnosis or gaze into small mirrors to unlock the secret powers of the ancestors in curing. Others concentrate on plates filled with water or large, brilliant chunks of glass. The most common but certainly the most incongruous method of acquiring a vision by both Aka and Ngando ngangas today is staring into a light bulb. These are simply stuck into the ground in front of the nganga or, as is the case among many village healers, the light bulb is floated in a glass of water during consultation. The appearance of a light bulb surfacing from an Aka nganga’s healing paraphernalia in the middle of a rain forest is, to say the least, unique. Western methods of divining—of knowing the unknown—were not, and to some degree are not now, significantly different from the techniques of the ngangas. Our ways of “seeing,” involving gazing at and “reading” tea leaves, crystal balls, cards, palms, and stars, are still considered appropriate techniques by many.

**Therapy Choices and Therapy Managers**

A wide variety of therapies coexist in contemporary Africa, and the situation in the village of Bagundu is no exception. The major sources of treatment are Aka ngangas, Ngando ngangas, kinship therapy (family councils called to resolve illness-causing conflicts between kin), home remedies, Islamic healers (marabouts), and the local nurse at the government dispensary, who is called “doctor” by villagers and hunters alike. In addition, faith healers, herbalists, and local specialists (referred to as “fetishers”) all attempt, in varying degrees, to treat mental or physical illness in Bagundu. Intermittently Westerners, such as missionaries, personnel from the U.S. Agency for International
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Development, and anthropologists, also treat physical ailments. Bagandu is a large village of approximately 3,400 inhabitants, however; most communities are much smaller and have little access to modern treatment. And, as Cavalli-Sforza has noted,

If the chances of receiving Western medical help for Africans living in remote villages are very limited, those of Pygmies are practically nonexistent. They are even further removed from hospitals. African health agents usually do not treat Pygmies. Medical help comes exceptionally and almost always from rare visiting foreigners. (Cavalli-Sforza 1986: 421)

Residents of Bagandu are fortunate in having both a government dispensary and a pharmacy run by the Catholic church, but prescriptions are extremely costly relative to income, and ready cash is scarce. A more pressing problem is the availability of drugs. Frequently the "doctor" has only enough to treat the simplest ailments such as headaches and small cuts; he must refer thirty to forty patients daily to the Catholic pharmacy, which has more drugs than the dispensary but still is often unable to fill prescriptions for the most frequently prescribed drugs such as penicillin, medicine to counteract parasites, and antibiotic salves. Although the doctor does the best he can under these conditions, patients must often resort only to popular medical treatment—in spite of the fact that family members, the therapy managers, have assessed the illness as one best treated by biomedicine. In spite, too, of the regular unavailability of medicine, the doctor’s diagnosis and advice is still sought out—"although many people will consent to go to the dispensary only after having exhausted the resources of traditional medicine" (Motte 1980: 311).

Popular ethnomedical treatment is administered by kin, ngangas (among both the Aka and Ngando villagers), other specialists noted for treatment of specific maladies, and Islamic marabouts, who are recent immigrants from Chad. According to both Aka and Ngando informants, the heaviest burden for health care falls to these ethnomedical systems. Ngando commonly utilize home, kin remedies for minor illnesses, but almost 100 percent indicated that for more serious illnesses they consulted either the doctor or ngangas (Aka, Ngando, or both); to a lesser extent they visited specialists. The choice of treatment, made by the family therapy managers, rests not only on the cause and severity of the illness, but also on the availability of therapists expert in the disease or problem, their cost, and their proximity to the patient. Rarely do the residents of Bagandu seek the aid of the marabouts, for example, in part because of the relatively high cost of consultation. Clearly, both popular and biomedical explanations for illness play important roles in the maintenance of health among Bagandu villagers, although popular medicine is the most important therapy resource available. Popular medicine is especially vital for the Aka hunters, whose relative isolation and inferior status (in the eyes of the Ngando) have resulted in less opportunity for biomedical treatment. Yet even they seek out modern medicine for illnesses.

Whatever the system of treatment chosen, it is important to understand that "the management of illness and therapy by a set of close kin is a central aspect of the medical scene in central Africa . . . . The therapy managing group . . . exercises a brokerage function between the sufferer and the specialist" (Janzen 1978: 4). It is the kinggroup that determines which therapy is to be used.

Explanations of Illness

The choice of therapy in Bagandu is determined by etiology and severity, as in the West. Unlike Western medicine, however, African ethnomedicine is not restricted to an etiology of only natural causation. Both the Aka and the Ngando spend a great deal of time, energy, and money (or other forms of payments) treating illnesses perceived as being the result of social and cultural imbalances, often described in supernatural terms. Aka and Ngando nosology has accommodated biomedicine without difficulty, but traditional etiology has not become less important to the members of these societies. Frequent supernatural explanations of illness by Aka and Ngando informants inevitably led me to the investigation of witchcraft, curses, spells, or the intervention of ancestors and nameless spirits, all of which were viewed as being responsible for poor health and misfortune. The Aka maintain, for example, that the fourth leading cause of death in Bagandu is witchcraft (diarrhea is the principal cause; measles, second, and convictions, third [Hewlett 1986: 56]). During my research, it became apparent that a dual model of disease explanation exists among the Aka and Ngando: first, a naturalistic model that fits its Western biomedical counterpart well, and second, a supernaturalistic explanation.

Interviews with village and Pygmy ngangas indicated that their medical systems are not significantly different. Indeed, both groups agree that their respective categories of illness etiology are identical. Further, the categories are not mutually exclusive: an illness may be viewed as being natural, but it may be exacerbated by supernatural forces such as witchcraft and spells. Likewise, this phenomenon can be reversed: an illness episode may be caused by supernatural agents but progress into a form that is treatable through biomedical techniques. For example, my relatively educated and ambitious young field assistant, a villager, was cut on the lower leg by a piece of stone while working on a new addition to his house. The wound, eventually becoming infected, caused swelling throughout the leg and groin. As was the case in some of his children’s illnesses, the explanation for the wound was witchcraft. It was clear to him that the witch was a neighbor who envied his possessions and his employment by a foreigner. Although the original cut was caused by a supernatural agent, the resulting infection fitted the biomedical model. Treatment by a single injection of penicillin quickly brought the infection under control, although my assistant believed that had the witch been stronger the medicine would not have worked. Here is a case in which, “in addition to the patient’s physical signs and social relationships,” the passage of time is also crucial to “the unfolding of therapeutic action” (Feierman 1985: 77). As the character of an illness changes with time as the illness runs its course, the therapy manager’s decisions may change, because the perceived etiology can shift as a result of a variety of signs, such as a slow-healing wound or open conflict in the patient’s social group (Janzen 1978: 9)
Illnesses of God and Illnesses of Man

Both the Ngando and Aka explanations for natural illnesses lack clarity. Some ngangas refer to them as "illnesses of God"; others simply identify them as "natural"; and still others frequently use both classifications, regularly assigning each label to specific ailments. Hewlett maintains that the Aka sometimes labelled unknown maladies as illnesses of God (1986: personal communication). On the other hand, the Bakongo of neighboring Zaire defined illnesses of God as those "generally, mild conditions which respond readily to therapy when no particular disturbance exists in the immediate social relationships of the sufferer. . . . The notion of 'god' does not imply divine intervention or retribution but simply that the cause is an affliction in the order of things unrelated to human intentions" (Janzen 1978b; 9).

Both Janzen's and Hewlett's data are accurate, but my field data show as well as that the explanations of natural illnesses among the Ngando and Aka not only refer to normal mild diseases and sometimes unknown ones but also to specific illnesses named by the ngangas and the residents of Bagandu. The confusion surrounding these mixed explanations of disease causation is an important topic for future ethnosemantic or other techniques of emic inquiry by ethnographers.

Residents of Bagandu and both Aka and Ngando ngangas categorized sickness caused by witchcraft, magic, curses, spells, and spirits as "illnesses of man." This is the second major disease category. Witchcraft, for example, while not the main cause of death, is the most frequently named cause of illness in Bagandu. Informants in Bagandu cite the frequency of witchcraft accusations as proof of their viewpoint. Antisocial or troublesome neighbors are frequently accused of being witches and are jailed if the charge is proven. Maladies of all sorts, such as sterility among females, are also commonly attributed to the innate and malevolent power of witches. These types of explanations are not unusual in rural Africa. What is surprising are reports of new illnesses in the village caused by witches.

All Ngando informants claimed, furthermore, that the problem of witchcraft has not diminished over time; on the contrary, it has increased. The thinking is logical: because witchcraft is believed to be inherited, any increase in population is seen also as an inevitable increase in the number of witches in the village. Population figures in the region of the Southern Rainforest have increased somewhat in the past few decades despite epidemics such as measles; accordingly, the incidence of maladies attributed to witches has increased. One informant from Bagandu strongly insisted that witches are not only more numerous but also much more powerful today than before. Offiong (1983) reported a marked increase of witchcraft in Nigeria and adjacent states in West Africa, caused not by inflation of population but by the social strain precipitated by the frustration accompanying lack of achievement after the departure of colonial powers.

Insanity is not a major problem among the Ngando. When it does occur, it is believed to be caused by witchcraft, clan or social problems, evil spirits, and breaking taboos. Faith healers, marabouts, and ngangas are seen as effective in the treatment of mental illness due to witchcraft or other causes. The role of faith healers is particularly important in the lives of members of the Prophetical Christian Church in Bagandu. They have strong faith in the healing sessions and maintain that the therapy successfully treats the victims of spirits' attacks. Informants also claim the therapy lasts a long time.

The curse is a common method of venting anger in Bagandu, used by both male and female witches. Informants stated that women use curses more than men and that the subjects of their attacks are often males. The curses of witches are counted as being extremely dangerous in the intended victim. One villager accused the elderly of using the curse as a weapon most frequently. Spell-casting is also common in the area, and males often use spells as a method of seduction.

Most, if not all, residents of Bagandu use charms, portable "fetishes," and various types of magical objects placed in and around their houses for protection. Some of these objects are counter-magical: they simultaneously protect the intended victim and turn the danger away from the victim to the attackers. Counter-magic is not always immediate; results may take years to appear. Charms, fetishes, and other forms of protection are purchased from ngangas, marabouts, and other specialists such as herbalists. For example, the Aka and Ngando alike believe that wearing a mole's tooth on a bracelet is the most powerful protection from attacks by witches.

To a lesser extent, spirits are also believed to cause illness. It is problematic whether or not this source of illness deserves a separate category of disease causation. Bahuchet thinks not; rather, he holds that spirit-caused illnesses should be labeled illnesses of God (1986: personal communication). It is interesting to note that in addition to charms and other items put to use in Bagandu, residents supplicate ancestors for aid in times of difficulty. If the ancestors do not respond, and if the victim of the misfortune practices Christianity, he or she will seek the aid of God. Non-Christians and Christians alike commonly ask diviners the cause of their problem, after which they seek the aid of the proper specialist. Revenge for real or imagined attacks on oneself or on loved ones is common. One method is to point a claw of a mole at the wrongdoer. Ngando informants maintain the victim dies soon after. Simple possession of a claw, if discovered, means jail for the owner.

My initial survey of Aka and Ngando ngangas in 1984 brought out other origins of illness. Two ngangas in Bagandu specifically cited the devil, rather than unnamed evil spirits, as a cause for disease. The higher exposure of villagers to Christianity may
account for this attribution: seven denominations are currently represented in the churches of Bagandu. Urban ngangas questioned in Bangui, the capital, stressed the use of poison as a cause of illness and death. Although poisonings do not figure prominently as a cause of death among the Aka and Ngando, it is common belief that ngangas and others do use poison.

Finally, while not a cause for illness, informants maintained that envious ngangas have the power to retard or halt the progress of a cure administered by another. All ngangas interviewed in 1984 and 1985 confirmed not only that they have the power to interrupt the healing process of a patient but also that they frequently invoke it. Interestingly, ngangas share this awesome power with witches, who are also believed by members of both societies to be able to spoil the "medicine" of healers. This kind of perception of the ngangas' power accounts, in part, for their dual character: primarily beneficial to the public, they can also be dangerous.

While the numerical differences in the frequency of psychologically and psychologically rooted illnesses in Bagandu are unknown, Ngando respondents in a small sample were able to list a number of supernaturally caused illnesses that are treatable by ngangas, but only a few naturally caused ones. Among the naturalistic illnesses were illnesses of the spleen; laltungha, deformation of the back; and Kongo, "illness of the rainbow." According to Hewlett (1986: 53), Kongo causes paralysis of the legs (and sometimes of the arms) and death after the victim steps on a dangerous mushroom growing on a damp spot in the forest where a rainbow-colored snake has rested. Had the Ngando sample been more exhaustive, it is probable that the list of natural diseases would have been greater, although perhaps not as high as the twenty natural illnesses the ngangas said they could treat successfully. That impressive list includes malaria, hernia, diarrhea, stomach illness, pregnancy problems, dysentery, influenza, abscesses, general fatigue, traumas (snake bite, miscellaneous wounds, and poisoning), and general and specific bodily pain (spleen, liver, ribs, head, and uterus).

**Powers of the Ngangas**

The powers of the ngangas are not limited to controlling and defeating supernatural or natural diseases alone. In the village of Bagandu and in the adjacent Southern Rainforest where the Ngando and Aka hunters come into frequent contact, tensions exist due to the patron-client relationship, which by its very economic nature is negative. These tensions are magnified by ethnic animosity. Without the Akas' mystical power, their economic and social inferiority would result in an even more difficult relationship with the Ngando. Here the powers of the Pygmy ngangas play an important part in leveling, to bearable limits, the overshadowing dominance of the Ngando, and it is here that the ngangas demonstrate their leadership outside the realm of health care. Each Aka has some form of supernatural protection provided by the nganga of his camp to use while in the village. Still, the need exists for the extraordinary powers of the nganga himself for those moments of high tension when Aka are confronted by what they consider the most menacing segments of the village population: the police, the mayor, and adolescent males, all of whom, as perceived by the Aka, are dangerous to their personal safety while in the village.

In the summer of 1986, I began to study the attitudes of village patrons toward their Aka clients and, conversely, the attitudes of the so-called wayward servants (Turnbull's term for the Mbuti Pygmy of Zaire, 1965) toward the villagers. Participant observation and selective interviews of patrons, on the one hand, and of hunters, on the other, disclosed other important tangents of power of the Aka in general and of their ngangas in particular. First, the Aka often have visible sources of power such as scarification, cords worn on the wrist and neck, and bracelets strung with powerful charms for protection against village witches. These protective devices are provided the Aka by their ngangas. Second, and more powerful still, are the hidden powers of the Aka in general, bolstered by the specific powers of the ngangas. Although the villagers believe the hunters' power is strongest in the forest, and therefore weaker in the village setting, Aka power commands the respect of the farmers.

Third, the villagers acknowledge the Aka expertise in the art of producing a variety of deadly poisons, such as sepì, which may be used to punish farmers capable of the most serious crimes against the Pygmies. The obvious functions of these means of protection and retribution, taken from the standpoint of the Aka, are positive. Clearly these powers reduce the tension of the Aka while in the village, but they also control behavior of villagers toward the hunters to some undefinable degree.

Villagers interpret the variety of punishments which the Aka are capable of meting out to wrongdoers as originating in their control of mystical or magical powers. Interestingly, even poisonings are viewed in this way by villagers because of the difficulty of proving that poison rather than mystical power caused illness or death. Although the use of poison is rare, it is used and the threat remains. Georges Guille-Escuret, a French ethnologist working in Bagandu in 1985, reported to me that prior to my arrival in the field that year three members of the same household had died on the same day. The head of the family had been accused of repeated thefts of game from the traps and from the camp of an Aka hunter. When confronted with the evidence—a shirt the hunter had left at the scene of the thefts—the family rejected the demands of the hunter for compensation for the stolen meat. Soon thereafter, the thief, his wife, and his mother died on the same day. Villagers, who knew of the accusations of theft, interpreted the deaths as the result of poisoning or the mystical powers of the hunter.

Stories of Aka revenge are not uncommon, nor are the Akas' accusations of wrongdoing leveled against the villagers. To the Ngando farmers, the powers of the Aka ngangas include the ability to cause death through the use of fetishes, to cause illness to the culprit's eyes, and to direct lightning to strike the perpetrator. These and other impressive powers to punish are seen as real threats to villagers—but the power of the ngangas to cure is even more impressive.

Attempts in my research to delineate the strengths and weaknesses of the ngangas and other health care specialists discovered a number of qualities/characteristics widely held to be associated with each. First, each specialist is known for specific medical abilities; that is, Aka and Ngando ngangas recognize the
therapeutic expertise of others in a variety of cures. A nganga from Bangui maintained that Aka ngangas were generally superior to the village healers in curing. This view is shared by a number of villagers interviewed, who maintained that the power of Aka ngangas is greater than that of their own specialists.

The Aka strongly agree with this view, and in a sense the Aka are more propitiated in the realm of curing than are the villagers. There is no question that the Aka are better hunters. Despite the Ngandos' greater political and economic power in the area and the social superiority inherent in their patron status, the Ngando need the Aka. All these elements help balance the relationship between the two societies, although the supernatural and curative powers of Aka ngangas have not previously been considered to be ingredients in the so-called symbiotic relationship between Pygmy hunters and their horticultural neighbors.

Second, ngangas noted for their ability to cure particular illnesses are often called upon for treatment by other ngangas who have contracted the disease. Third, with one exception, all the ngangas interviewed agree that European drugs, particularly those contained in hypodermic syringes and in pills, are effective in the treatment of natural diseases. One dissenting informant from the capital disdained biomedicine altogether because, as he said, "White men don't believe in us." Fourth, of the fourteen Aka and Ngando ngangas interviewed in 1985, only five felt that it was possible for a nganga to work successfully with the local doctor (male nurse) who directed the dispensary in Bagandu. All five of these ngangas said that if such cooperation did come about, their special contribution would be the treatment of patients having illnesses of man, including mental illness resulting from witchcraft, from magical and spiritual attacks, and from breaking taboos. None of the ngangas interviewed had been summoned to work in concert with the doctor. Fifth, as a group of the ngangas held that biomedical practitioners are unable to successfully treat mental illnesses and other illnesses resulting from attacks of supernatural agents. In this the general population of the village agree. This is a vitally important reason for the sustained confidence in popular therapy in the region—a confidence that is further strengthened by the belief that the ngangas can treat natural illnesses as well. Sixth, the village doctor recognized that the ngangas and marabouts do have more success in the treatment of mental illnesses than he does. Although the doctor confided that he has called in a village nganga for consultation in a case of witchcraft, he also disclosed that upon frequent occasions he had to remedy the treatment administered by popular specialists for natural diseases. It is important to recognize that unlike biomedical specialists in the capital, the local doctor does appreciate the talents of traditional therapists who successfully practice ethnopsychiatry.

All respondents to this survey recognized the value of biomedicine in the community, and little variation in the types of cures the doctor could effect was brought out. No doubts were raised regarding the necessity of both biomedicine and popular therapy to the proper maintenance of public health. The spheres of influence and expertise of both types of practitioners, while generally agreed upon by participants of the Ngando survey, did show some variation, but these were no more serious than our own estimates of the abilities of our physicians in the West.

In short, all informants utilized both systems of therapy when necessary and if possible.

The continuation of supernatural explanations of illness by both the Ngando and the Aka results in part from tradition, in combination with their lack of knowledge of scientific disease etiology, and in part because of the hidden positive functions of such explanations. Accusations of witchcraft and the use of curses and malevolent magic function to express the anxiety, frustrations, and social disruptions in these societies. These are traditional explanations of disease, with more than a single focus, for they focus on both the physical illness and its sociological cause. "Witchcraft (and by extension other supernatural explanations for illness and disaster) provides an indispensable component in many philosophies of misfortune. It is the friend rather than the foe of mortality" (Lewis 1986: 16). Beyond this rationale, reliance upon practitioners of popular medicine assures the patient that medicine is available for treatment in the absence of Western drugs.

The Role of Ethnomedicine

Among the Aka and Ngando and elsewhere, systems of popular medicine have sustained African societies for centuries. The evolution of popular medicine has guaranteed its good fit to the cultures that have produced it; even as disruptive an element of the system as witchcraft can claim manifest and latent functions that contribute to social control and the promotion of proper behavior.

Unlike Western drug therapies, no quantifiable measure exists for the effectiveness of popular medicine. Good evidence from World Health Organization studies can be brought forth, however, to illustrate the relatively high percentage of success of psychotherapeutic treatment through ethnomedicine in the Third World compared to that achieved in the West. The results of my research in Bagandu also demonstrate the strong preference of villagers for popular medicine in cases involving mental illness and supernaturally caused mental problems. At the same time, the doctor is the preferred source of therapy for the many types of natural disease, while ngangas and other specialists still have the confidence of the public in treating other maladies; referred to as illnesses of man and some illnesses of God. Whatever the perceived etiology by kimgroup therapy managers, both popular and biomedical therapists treat natural illnesses. It is in this realm of treatment that it is most important to ask, "What parts of popular medicine work?" rather than, "Does popular medicine work?" Because evidence has shown that psychotherapy is more successful in the hands of traditional curers, it is therefore most important to question the effectiveness of popular therapy in handling natural illnesses. Currently, the effectiveness of traditional drugs used for natural diseases is unknown; however, the continued support of popular therapists by both rural and urban Africans indicates a strength in the system. The effectiveness of the ngangas may be both psychological and pharmaceutical, and if the ecological niche does provide drugs that do cure natural illnesses, it is vital that these be determined and manufactured commercially in their countries of origin. If we can assume that some traditional drugs
are effective, governments must utilize the expertise of healers in identifying these.

It is unrealistic to attempt to train popular therapists in all aspects of biomedicine, just as it is unrealistic to train biomedical specialists in the supernatural treatments applied by popular practitioners. However, neither type of therapist, nor the public, will benefit from the expertise of the other if they remain apart. The task is to make both more effective by incorporating the best of each into a counterpart system that focuses on a basic training of healers in biomedicine. This combination must certainly be a more logical and economic choice than attempting to supply biomedical specialists to every community in Central African Republic, a task too formidable for any country north or south of the Sahara. The significance of this proposal is magnified by the massive numbers for whom biomedicine is unavailable, those who must rely only upon ethnomedicine.

Even if available to all, biomedicine alone is not the final answer to disease control in the Third World. Hepburn succinctly presents strong arguments against total reliance upon the biomedical approach:

Biomedicine is widely believed to be effective in the cure of sickness. A corollary of this is the belief that if adequate facilities could be provided in the Third World and "native" irrationalities and cultural obstacles could be overcome, the health problems of the people would largely be eliminated. However, this belief is not true, because the effectiveness of biomedicine is limited in three ways. First, many conditions within the accepted defining properties of biomedicine (i.e., physical diseases) cannot be treated effectively. Second, by concentrating on the purely physical, biomedicine simply cannot treat the social aspects of sickness (i.e., illness). Third, cures can only be achieved under favorable environmental and political conditions; if these are not present, biomedicine will be ineffective (1988: 68).

The problems facing societies in Africa are not new. These same issues faced Westerners in the past, and our partial solutions, under unbelievably better conditions, took immense time and effort to achieve. If primary health care in the non-Western world is to improve, the evolutionary process must be quickened by the utilization of existing popular medical systems as a counterpart of biomedicine, by the expansion of biomedical systems, and by the cooperation of international funding agencies with African policymakers, who themselves must erase their antagonism toward ethnomedicine.