Mr. W.S. Rogers,
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Dear Mr. Rogers:

In studying and analyzing the medical ideas of a primitive tribe one makes certain assumptions, implicitly or explicitly, about the mentality of the people. Early ethnologists who wrote notes on primitive medicine tended to assume that the mental processes of primitive man were different from those of modern man. The theory proposed by the French anthropologist Levy-Bruhl that the reasoning of primitive people was prelogical or mystical was widely accepted. A large part of primitive medical customs were described as "magical" with the implication that they were illogical and irrational. Medical historians often made similar assumptions in analyzing archaic documents. The late Professor J. H. Breasted in his classic translation and analysis of the Edwin Smith Surgical Papyrus, an ancient Egyptian medical treatise, was delighted to find an
ancient Egyptian doctor who was beginning to think logically in terms of cause and effect. The fullest account to date of the medicine of an African tribe is to be found in a book written by Dr. Harley, a missionary doctor, on the Mano Tribe of Liberia. Dr. Harley listed a number of Mano medical procedures as magical and irrational. He then went on to explain that from the native viewpoint these procedures are rational. This leads to the question of what we mean by "rational."

A convincing answer to this question was presented by Professor Evans-Pritchard in his book, "Witchcraft, Oracles, and Magic among the Azande." In a society riddled with witchcraft and magic, he found that the medical reasoning was logical enough if you considered the basic beliefs of the people concerning human nature and supernatural forces. Another student of primitive medicine, Dr. E.H. Ackerknecht, went even further in asserting the logical nature of primitive thought. In a paper based on a wide study of other writings on the subject he wrote: "...the essential differences between primitive and scientific thought lay not in the logical mechanisms, but in the difference of the premises. .... One could even argue that one of the traits which often separate primitive from modern mentality is an exaggeration of logic in the primitive; an obsession to find a cause everywhere; the absence of the concept of 'accident.'"¹

Persuaded by the arguments of these students, I tentatively accepted their view of primitive mentality as an assumption on which to base my own analysis. The field investigation which I have so far carried out has not contradicted my assumption of the logical nature of primitive thought, but in the field of medicine certain qualifications should be made. In most tribes of East Africa the distinction between doctor and layman is not sharply drawn. The adult men of a society usually understand the medical theories and practices that prevail in their tribe. The medical thinking of these men, provided they are responsible intelligent members of the society, is essentially logical and conforms to Ackerknecht's description. Even when they consult a diviner or a specialist with secret remedies they are acting rationally in accordance with the belief held in their society that those specialists have superior knowledge or powers in certain matters; just as an American layman has confidence in a qualified doctor without being able personally to judge his competence.

The rationality of the primitive specialist is a different question. In many cases, as with the medicine men (qwatlarmo) of the Gorowa Tribe (cf. RFG - 13), they seem to honestly believe in their own art of divining, and from these premises their reasoning and actions are logical. In tribes where medical knowledge is concentrated in the hands of doctors, though, the element of charlatanry may, and often does, destroy the logical consistency of the medical system. To give an example of a custom that is found widely distributed in the world: many tribes

have the belief that a witch is able to "shoot" a foreign body into his victim. The resulting sickness can only be cured if the foreign body is removed. This is done by a doctor who usually sucks on the affected part of the patient's body and then spits out the foreign body—a trick of legerdemain. A layman's thinking in such a case might be quite logical, but the procedure of the doctor can be nothing but outright quackery. In primitive societies the layman seems to be more rational about medical matters than the doctor—a reversal of the conditions which are supposed to prevail in Western society.

The Sonjo have no doctors or diviners and few therapeutic specialists of any kind. As one might expect, therefore, their medical lore and practices are comparatively rational; they can usually give a reason for what they do. As I understand it, the main task in analysing Sonjo medicine, then, is to trace down the different practices through the sequence of native reasoning to the presuppositions on which they are based. As a matter of fact, these presuppositions have more in common with our own than with those of most African tribes. Their vigorous tribal religion is based on the belief in a single God, as I have described in previous field reports. The welfare of the tribe as a whole and of each individual is dependent on the good will of this God—Xambageu. Good health is considered to be the normal condition of man, but, judging from the wording of some prayers, it is also a blessing bestowed by Xambageu. But he is thought of mainly as a guardian spirit who protects the people against the manifold dangers of sickness and accident which are present in the world. If an individual or a village neglects the rites which honor Xambageu or disobey his commandments, he may withdraw his blessings or refuse his protection. He does not seem to be a vengeful God who afflicts sinners with adversities.

Common sense teaches the Sonjo, like other people, that if you put your hand in boiling water it will be scalded. Xambageu's providence is not a substitute for discretion. He expects people to use their knowledge and skill in avoiding injury and treating sickness. But human efforts alone are fruitless in the long run without his blessing. Up to this point there is no great difference between Sonjo philosophy and our own. An American doctor can firmly believe that human welfare is ultimately in the hands of God and still carry on his practice and research on the highest scientific standards; there is plenty of scope for science short of the ultimate. Within this field of limited cause and effect the Sonjo have developed a rudimentary theory of physiology and therapy which they apply in much of their medical practice according to rational principles, but a good deal of it is simply empirical—it is believed to work but they don't know how or why.

The gastrointestinal tract, particularly the stomach, gall bladder, and colon, are held by the Sonjo to be of central importance in the cause of general sickness. The digesting food in the stomach or the fecal matter in the colon may go sour or become infested with worms and poison the whole body. To remedy these conditions emetics and purges are used liberally in a variety of diseases. These medicines are compounded of certain barks and roots which are ground to powder or infused in water or meat broth. Some six or seven of these herbs, graded according to the strength of their action, are regarded as
Sonjo Village Gate

Village Temple

Cultivating with Digging Stick

Women's Work Party
standard remedies, while another dozen or so are known and used by certain people on the basis of satisfactory results in the past. Bile is regarded as a harmful substance which should normally be retained within the gall bladder. As it is often found in the vomitus brought up by emetics, the Sonjo reason that an important action of these drugs is to remove harmful bile.

Thin watery blood is thought to be an important factor in any debilitating sickness which cannot be specifically diagnosed. Several herbs are attributed with the property of thickening the blood. These are always mixed with meat broth, which is also taken alone as a strengthening tonic. These blood-building remedies are used not only in the treatment of disease, but also to give added strength and energy to warriors for dancing and hunting, or, in the old days, for warfare. Melted fat from sheep or goats, especially from the tail of a fat-tailed sheep, is also believed to thicken the blood, but it has the specific effect of stopping hemorrhage, and so it is more used in surgery and obstetrics than in internal medicine.

Most of the remaining medicinal herbs fall in the group of febrifuge remedies. Malaria and other fevers are believed to be caused by hot blood, which must be cooled if the patient is to be cured; but they have no elaborate theory of heat and cold as important factors causing disease. Several of the "cooling" herbs are also recognized as remedies for cough. One of these, called toro, is the Sonjo equivalent of our aspirin. It is widely used for colds and for other respiratory infections and fevers, mixed with milk for children and with meat broth for adults.

It will be apparent that the Sonjo do not distinguish by name a large number of diseases, but rather they tend to group a variety of conditions into a few broad classes, which are believed to have an essential factor in common. Some diseases, however, have such pathognomonic symptoms that they force recognition as separate entities. Of the common childhood diseases, mumps and chickenpox seem to have been prevalent and have native names. Both are recognized as self-limiting diseases and are not treated specifically. The Sonjo consider smallpox to be a foreign disease and know it only by its Swahili name—ndui. If they were involved in the epidemic which swept through the Masai in 1888, the event is no longer remembered. Anthrax has a high incidence in Sonjo and they have worked out a definite regime of treatment, but have no theory of its cause and do not associate it with goats. Anthrax in children (morimu) is thought to be different from the disease in adults (exonij). In children treatment is directed mainly to the lesion with the object of removing the core from the pustule. Adults are treated with herbs taken by mouth. With the exception of scabies in children, which is treated with a soapy tree sap that is also used for defleasng young goats, skin diseases are neglected. Considering the lack of personal cleanliness, it is surprising that so few advanced skin conditions are seen.

Melted animal fat eaten in large quantities is the prime remedy in wounds, or wherever there is bleeding, because of its supposed hemostatic effect. Another surgical medicine is the seeds of a wild
grass called *xasi*, which are ground and applied locally for the purpose of promoting healing and preventing sepsis. *Xasi* powder is also mixed with the water that a surgical patient drinks for the same purpose. It is very extensively used, and every homestead possesses a jar of the dry seeds which are collected and stored when the grass ripens. The Sonjo know how to close lacerations by pinning the skin edges together with thorns. The thorn skewer is held in place by a figure-of-eight suture of animal-tail hair around the protruding ends. Fractures are treated with splints of sticks and leather. To my knowledge, no fracture occurred during my stay, but I was shown splints which had been successfully used and then put aside for future cases. A brother-in-law of my guide Gidiya had fallen from a tree while putting up a bee hive about two years previously and fractured his femur. He was carried home on a litter and the thigh was bound in long splints extending well below the knee. Leather thongs were tied to his toes and attached to a peg at the foot of his sleeping skin; this helped to immobilize the leg and exerted some traction on the distal fragment. He states that he was walking on the leg about three months after the accident. At present the union is firm and the leg serviceable, but there is bowing of about ten degrees.

The Sonjo approach most of their problems in the field of general medicine and surgery in this same spirit of common sense. Starting from their presuppositions concerning man and the universe, and from a few ideas about physiology and therapeutics which they accept as axiomatic—and which are at least plausible to a scientifically unsophisticated mind—they reason logically from their clinical data and act rationally as well as they are able to. There is no spirit of dogmatism and no cocksureness about diagnosis and prognosis. After all that is humanly possible has been done, the fate of a sick person still rests with *Xambageu*. The prayers and religious rites which are frequently performed are as important for individual and community health as medical knowledge and skill.

As might be expected from this sensible attitude, there is little scope for witchcraft in Sonjo medicine. Occasionally a sick child is believed to have been bewitched by the evil eye. Then the alleged witch is persuaded to remove the spell by spitting on the child and blessing it, and the child recovers. No case of a fatal bewitching occurred during my visit in Sonjo. There is good evidence that belief in witchcraft has declined in recent times with the increase in intensity of the *Xambageu* cult. Some of the elders can remember a time when all the witches of a village who were suspected of practicing witchcraft during the year were called together on a certain day and fined six goats apiece. A certain amount of faded lore about witchcraft remains, but it no longer causes much fear and is not an important element in Sonjo medicine.

Another common East African institution which is weakly represented among the Sonjo is the cult of ancestor spirits. In theory ancestral ghosts are capable of causing harm to their descendants, but they are rarely cited as a cause of sickness except in the special case of childbirth, as I shall mention later. The Sonjo share the beliefs of other tribes that life continues after death in the form of shadowy ghosts who have rather crochety dispositions and have no special relationship to *Xambageu*. There is also an eschatological element in Sonjo theology according to which *Xambageu* will return to earth as a savior at the end of the world.
The belief is that he will recognize all true Sonjo by a scar under the left breast with which they are marked in childhood. If this myth were strictly interpreted, only the generation of Sonjo who happen to be living at the end of the world would be saved, but there is a feeling that all members of the tribe, past, present, and future, will be rewarded for their faith. The virioka are not thought of as participating in the general resurrection. They probably represent an older traditional belief which has not yet been assimilated to the religion of Xambageu. It is not unusual in any religion for contradictory beliefs concerning surviving souls and the hereafter to exist side by side.

In Western medicine the opinion is generally held that childbirth is a normal physiological function; but obstetricians who deal with complications of pregnancy and gynecologists who patch up the aftereffects sometimes view parturition as a pathological process. The Sonjo adhere to the first opinion, but they do not consider obstetrics as a branch of medical science. There are no professional midwives in the tribe, but most of the older women are versed in the art. The midwifery policy is one of watchful waiting. The patient is given advice and encouragement, but manipulative procedures are seldom attempted. If a labor is unusually difficult it is because certain rites were neglected during the pregnancy. If a woman's condition becomes serious, there is strong suspicion that she has committed adultery. If she dies in childbirth, it is known for certain that she has been an unfaithful wife. On the other hand, if a woman delivers her baby normally it proves that she was a faithful wife. Adultery is the only recognized cause of death at childbirth, and it inevitably results in death unless the errant woman confesses her sin and is purified in time. She must confess to her husband, who may then order purification medicine, which involves the sacrifice of a goat. No one else can do this for her, and if the husband refuses the woman is lost. Adultery is regarded as very shameful behavior and women are reluctant to confess this sin until it is absolutely necessary. If a woman obstinately denies her guilt right up to her death, it seems obvious to her neighbors that she preferred death to making her shame public.

The Sonjo regard the punishment for adultery as automatic retribution for sin and are not much concerned with the actual pathological mechanism of the death. When they are pressed for explanation they state that the agents which prevent the successful birth are virioka. A child who is born of an adulterous mother after she had confessed must undergo further purification rites if it is to grow up and develop normally. If these rites are neglected the child may develop epilepsy or mental deficiency or other abnormality. This belief provides an explanation for almost any congenital defect which may afflict a child. The complex of ideas about adultery are not connected with the Xambageu religion. These ideas were probably strongly entrenched in the society before the cult of Xambageu arose, but unlike witchcraft beliefs they have not been weakened by or assimilated to this cult.

There are no real food taboos among the Sonjo, though certain foods, such as fish, are not considered fit for human consumption. The only taboo, apart from strictly religious injunctions, which brings serious harm to the transgressor is a prohibition against marrying women of the blacksmith's clan. This taboo was broken several times in recent years
with fatal results, and it is now rigidly observed.

The myths of Xambageu give divine sanction to many of the customs of daily life: The use of digging sticks, methods of irrigation, the herding of goats, and so forth were commanded by Xambageu while he was on earth. So long as an individual observes these customs, does not profane springs, temples, and other sacred places, and participates in the dances and rites honoring Xambageu, he is reasonably confident that he will be protected against serious sickness or other misfortune. Lesser troubles can be dealt with by Sonjo medicine. The ways of Xambageu are not quite as inscrutable as those of Jehovah, but still it is realized that he sometimes allows persons of blameless lives to sicken and die.

There is little in the traditional beliefs of the Sonjo which would hinder their acceptance of modern medical services if they became available. They seem to look on Western medicine not as a form of magic, but as similar in kind to their own; perhaps more effective in the treatment of some diseases. Their contact with it has been slight as yet. The rather primitive government dispensary dispenses antimalarial drugs and a limited amount of sulfonamides. A few advanced cases of tuberculosis have been sent to the district hospital, where some of them have died. In short, the Sonjo have not yet awakened to the benefits which can be expected of modern medicine. This realization will undoubtedly come as medical facilities are made available.

Sincerely,

[Signature]

Robert F. Gray.

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