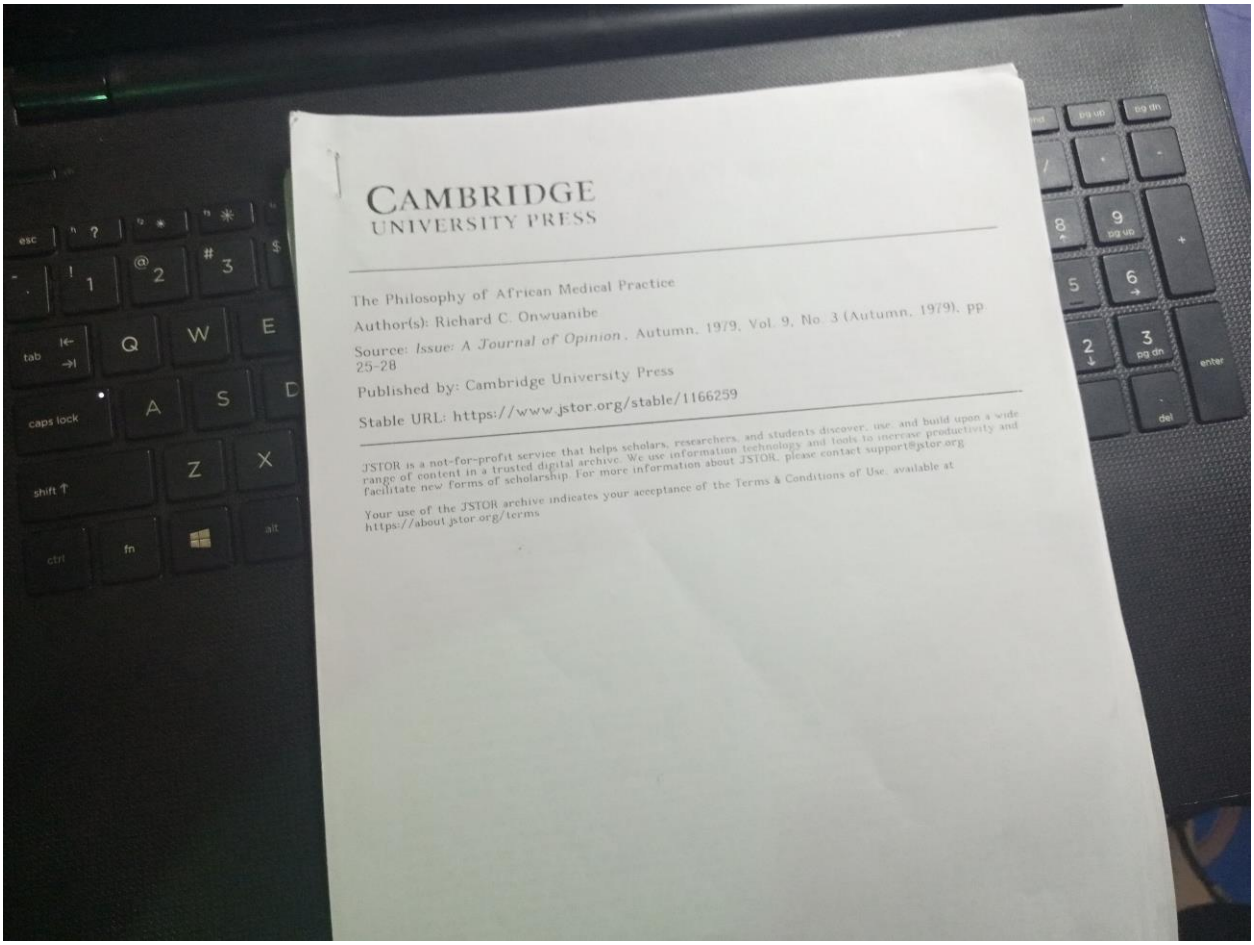

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Author(s): Richard C. Onwuanibe

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THE PHILOSOPHY OF AFRICAN MEDICAL PRACTICE

Richard C. Onwuanibe
Cleveland State University

The philosophy of African medical practice is rooted in the African world view. Those locating the cause and cure of sickness in traditional practice ask about the ultimate who, rather than what. The answers given are in terms of the cosmological beliefs of the people. I shall deal with the philosophical issues in African medicine with particular reference to causes and cures of sickness in the traditional practice, the human person in this practice, the Christian, the colonial, and modern impact on this view, and a look towards the future. In doing this, I shall show that African traditional medical practice has important contributions to make in technologically oriented medicine.

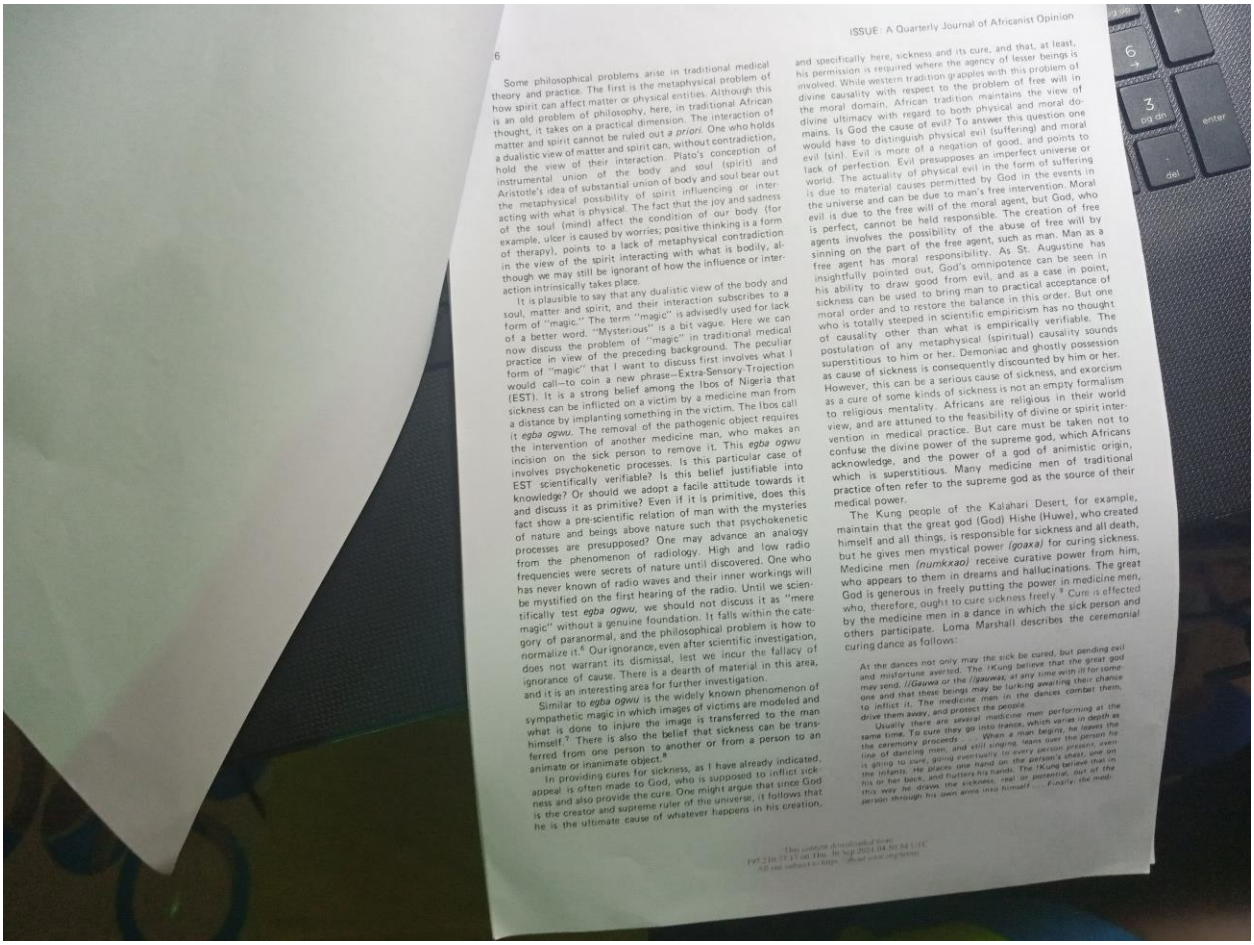
CAUSE AND CURE OF SICKNESS IN TRADITIONAL PRACTICE

A general observation about causes and cures of sickness in the traditional practice reveals that the native African refers them, in most cases, ultimately to persons—human or spiritual—rather than to natural causes, which are seen as resulting from the manipulations of men, spirits, gods, or God. By tradition, Africans are not materialists; they are ethico-religious, and this orientation is reflected in their medical practice. Nobody becomes sick without a sufficient reason, which is interpreted ultimately in terms of human and supernatural agency.

Since the native Africans have a view of a moral universe in which humans, spirits, gods, or God interact, all sicknesses and epidemics are often regarded as an imputation of guilt by the individual, family, village, or the people as a whole. These maladies are regarded as signs either of the displeasure of the gods or God at the victim's sin or those of his family or community, or the ill will of some malevolent enemy. In other words, illness is considered a consequence of a breach of universal moral law by the victims. The ideal world is moral. Here we see the conflict or war of good and evil, but it is expected that eventually good will triumph over evil. God or gods and forefathers are guardians of the social order and can exact redress by inflicting punishment on those who infringe the moral order of society. For example, among some native peoples[1] there are beliefs in a god (spirit) of smallpox,[2] ghostly possession, and magic worked by a malevolent enemy. Sickness may also be due to the spirit of a relative of the sick person, who had not been put to rest by sacrifice. The cause of mental derangement is more than merely physical. It is ultimately connected with some disturbance in the spirit world. Hence, natural causes, such as climatic conditions and viruses, are considered in relation to the interplay of natural and supernatural forces. A question arises as to the rational justifiability of these beliefs. We shall deal with this later.

The above view of causality in sickness and its cure is given expression in the mediation of the traditional medical profession, medicine men, (nde dibea in Ibo culture). The practice of this profession is a mixture of the mystical and physical: it has strands of divination, "magic," and the religious and herbal treatment. The training to become a medicine man is complex, depending on the kind of medical practice that the aspirant wants. One can train to be a diviner, a priest to offer sacrifices, or a general practitioner.[3] One can train to combine all three in his career. It is inaccurate to lump all medicine men together as witch-doctors, for witchcraft is a particular kind of medical practice designed for evil purposes. The traditional medical profession involves teaching, initiation, and expenses. In the Ibo society, entry into it is not restricted, as in a hereditary system, but it is open to anyone. However, sons often follow in the footsteps of their dibea father or senior relatives. A sign of calling in this profession can be given through mental derangement, in which the person called is troubled by agwu Nshi, the spirit of divining, and eventually receives inspiration.[4] Psychological stability is attained in the process of this person's training.[5] The initiated possess the power of mediating between the human and supernatural world, of invoking spiritual power into material substances. As a mediator the medicine man, by virtue of initiation, is regarded as half man and half spirit. Although spirits are more powerful than men, they can be used through appropriate "magical" art to inflict injuries on men, or procure a cure of sickness.

When a person becomes sick, a medicine man is called. He makes a diagnosis with some incantations, which give the air of mystical and cosmic connections in the ordered world of traditional thought. The sickness may easily be identified, if it is not serious, or if very serious, its diagnosis may require divination, which often connects it with the supernatural agencies. The medicine man, if he is not a diviner, asks the relatives of the sick person to consult a diviner to find the cause and decide what should be done to effect a cure. God or gods can be propitiated by sacrifice, and, consequently, evil for the individual, family, or community could be averted. In cases where consultation with the spirit world is made by divination, details of medication and expiatory sacrifice for effecting a cure are prescribed. Sacrifices are required in most cases because of the guilt involved on the part of the victim. Man is not merely physical; he has also a spiritual aspect (soul), which makes him a moral being capable of sin, and, consequently, subject to penalties in the form of suffering, and, in particular, sickness. There is a strong belief that the body and soul interact and influence each other.



Some philosophical problems arise in traditional medical theory and practice. The first is the metaphysical problem of how spirit can affect matter or physical entities. Although this is an old problem of philosophy, here, in traditional African thought, it takes on a practical dimension. The interaction of matter and spirit cannot be ruled out *a priori*. One who holds a dualistic view of matter and spirit can, without contradiction, hold the view of their interaction. Plato's conception of instrumental union of the body and soul (spirit) and Aristotle's idea of substantial union of body and soul bear out the metaphysical possibility of spirit influencing or interacting with what is physical. The fact that the joy and sadness of the soul (mind) affect the condition of our body (for example, ulcer is caused by worries; positive thinking is a form of therapy), points to a lack of metaphysical contradiction in the view of the spirit interacting with what is bodily, although we may still be ignorant of how the influence or interaction intrinsically takes place.

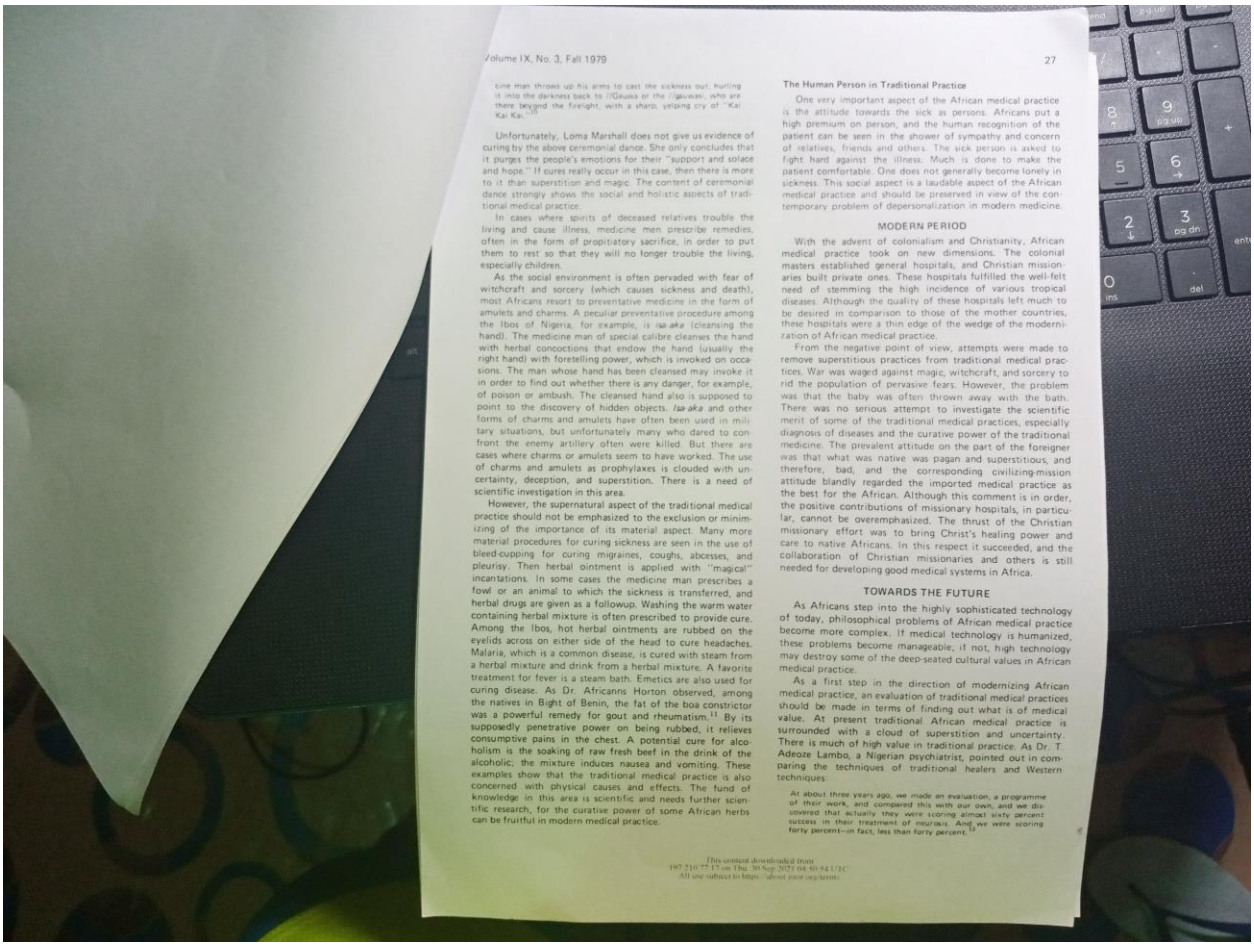
It is plausible to say that any dualistic view of the body and soul, matter and spirit, and their interaction subscribes to a form of "magic." The term "magic" is advisedly used for lack of a better word. "Mysterious" is a bit vague. Here we can now discuss the problem of "magic" in traditional medical practice in view of the preceding background. The peculiar form of "magic" that I want to discuss first involves what I would call—to coin a new phrase—Extra-Sensory-Trojection (EST). It is a strong belief among the Ibos of Nigeria that sickness can be inflicted on a victim by a medicine man from a distance by implanting something in the victim. The Ibos call it *egba ogwu*. The removal of the pathogenic object requires the intervention of another medicine man, who makes an incision on the sick person to remove it. This *egba ogwu* involves psychokenetic processes. Is this particular case of EST scientifically verifiable? Is this belief justifiable into knowledge? Or should we adopt a facile attitude towards it and discuss it as primitive? Even if it is primitive, does this fact show a pre-scientific relation of man with the mysteries of nature and beings above nature such that psychokenetic processes are presupposed? One may advance an analogy from the phenomenon of radiology. High and low radio frequencies were secrets of nature until discovered. One who has never known of radio waves and their inner workings will be mystified on the first hearing of the radio. Until we scientifically test *egba ogwu*, we should not discuss it as "mere magic" without a genuine foundation. It falls within the category of paranormal, and the philosophical problem is how to normalize it.[6] Our ignorance, even after scientific investigation, does not warrant its dismissal, lest we incur the fallacy of ignorance of cause. There is a dearth of material in this area, and it is an interesting area for further investigation.

Similar to *egba ogwu* is the widely known phenomenon of sympathetic magic in which images of victims are modeled and what is done to injure the image is transferred to the man himself.[7] There is also the belief that sickness can be transferred from one person to another or from a person to an animate or inanimate object.[8]

In providing cures for sickness, as I have already indicated, appeal is often made to God, who is supposed to inflict sickness and also provide the cure. One might argue that since God is the creator and supreme ruler of the universe, it follows that he is the ultimate cause of whatever happens in his creation, and specifically here, sickness and its cure, and that, at least, his permission is required where the agency of lesser beings is involved. While western tradition grapples with this problem of divine causality with respect to the problem of free will in the moral domain, African tradition maintains the view of divine ultimacy with regard to both physical and moral domains. Is God the cause of evil? To answer this question one would have to distinguish physical evil (suffering) and moral evil (sin). Evil is more of a negation of good, and points to lack of perfection. Evil presupposes an imperfect universe or world. The actuality of physical evil in the form of suffering is due to material causes permitted by God in the events in the universe and can be due to man's free intervention. Moral evil is due to the free will of the moral agent, but God, who is perfect, cannot be held responsible. The creation of free agents involves the possibility of the abuse of free will by sinning on the part of the free agent, such as man. Man as a free agent has moral responsibility. As St. Augustine has insightfully pointed out, God's omnipotence can be seen in his ability to draw good from evil, and as a case in point, sickness can be used to bring man to practical acceptance of moral order and to restore the balance in this order. But one who is totally steeped in scientific empiricism has no thought of causality other than what is empirically verifiable. The postulation of any metaphysical (spiritual) causality sounds superstitious to him or her. Demoniac and ghostly possession as cause of sickness is consequently discounted by him or her. However, this can be a serious cause of sickness, and exorcism as a cure of some kinds of sickness is not an empty formalism to religious mentality. Africans are religious in their world view, and are attuned to the feasibility of divine or spirit intervention in medical practice. But care must be taken not to confuse the divine power of the supreme god, which Africans acknowledge, and the power of a god of animistic origin, which is superstitious. Many medicine men of traditional practice often refer to the supreme god as the source of their medical power.

The Kung people of the Kalahari Desert, for example, maintain that the great god (God) Hishe (Huwe), who created himself and all things, is responsible for sickness and all death, but he gives men mystical power *(goaxa)* for curing sickness. Medicine men *(numkxao)* receive curative power from him, who appears to them in dreams and hallucinations. The great God is generous in freely putting the power in medicine men, who, therefore, ought to cure sickness freely.[9] Cure is effected by the medicine men in a dance in which the sick person and others participate. Lorna Marshall describes the ceremonial curing dance as follows:

> At the dances not only may the sick be cured, but pending evil and misfortune averted. The !Kung believe that the great god may send. *//Gauwa* or the *//gaowasi*, at any time with ill for someone and that these beings may be lurking awaiting their chance to inflict it. The medicine men in the dances combat them, drive them away, and protect the people.
>
> Usually there are several medicine men performing at the same time. To cure they go into trance, which varies in depth as the ceremony proceeds. . . . When a man begins, he leaves the line of dancing men and still singing, leans over the person he is going to cure, going eventually to every person present, even the infants. He places one hand on the person's chest, one on his or her back, and flutters his hands. The !Kung believe that in this way he draws the sickness, real or potential, out of the person through his own arms into himself. . . . Finally, the medi-



cine man throws up his arms to cast the sickness out, hurling it into the darkness back to /Gauwa or the /Gauwax', who are there beyond the firelight, with a sharp, yelping cry of "Kai Kai Kai..."[10]

Unfortunately, Lorna Marshall does not give us evidence of curing by the above ceremonial dance. She only concludes that it purges the people's emotions for their "support and solace and hope." If cures really occur in this case, then there is more to it than superstition and magic. The content of ceremonial dance strongly shows the social and holistic aspects of traditional medical practice.

In cases where spirits of deceased relatives trouble the living and cause illness, medicine men prescribe remedies, often in the form of propitiatory sacrifice, in order to put them to rest so that they will no longer trouble the living, especially children.

As the social environment is often pervaded with fear of witchcraft and sorcery (which causes sickness and death), most Africans resort to preventative medicine in the form of amulets and charms. A peculiar preventative procedure among the Ibos of Nigeria, for example, is *isa-aka* (cleansing the hand). The medicine man of special calibre cleanses the hand with herbal concoctions that endow the hand (usually the right hand) with foretelling power, which is invoked on occasions. The man whose hand has been cleansed may invoke it in order to find out whether there is any danger, for example, of poison or ambush. The cleansed hand also is supposed to point to the discovery of hidden objects. *Isa-aka* and other forms of charms and amulets have often been used in military situations, but unfortunately many who dared to confront the enemy artillery often were killed. But there are cases where charms or amulets seem to have worked. The use of charms and amulets as prophylaxes is clouded with uncertainty, deception, and superstition. There is a need of scientific investigation in this area.

However, the supernatural aspect of the traditional medical practice should not be emphasized to the exclusion or minimizing of the importance of its material aspect. Many more material procedures for curing sickness are seen in the use of bleed-cupping for curing migraines, coughs, abcesses, and pleurisy. Then herbal ointment is applied with "magical" incantations. In some cases the medicine man prescribes a fowl or an animal to which the sickness is transferred, and herbal drugs are given as a followup. Washing the warm water containing herbal mixture is often prescribed to provide cure. Among the Ibos, hot herbal ointments are rubbed on the eyelids across on either side of the head to cure headaches. Malaria, which is a common disease, is cured with steam from a herbal mixture and drink from a herbal mixture. A favorite treatment for fever is a steam bath. Emetics are also used for curing disease. As Dr. Africanns Horton observed, among the natives in Bight of Benin, the fat of the boa constrictor was a powerful remedy for gout and rheumatism.[11] By its supposedly penetrative power on being rubbed, it relieves consumptive pains in the chest. A potential cure for alcoholism is the soaking of raw fresh beef in the drink of the alcoholic; the mixture induces nausea and vomiting. These examples show that the traditional medical practice is also concerned with physical causes and effects. The fund of knowledge in this area is scientific and needs further scientific research, for the curative power of some African herbs can be fruitful in modern medical practice.

The Human Person in Traditional Practice

One very important aspect of the African medical practice is the attitude towards the sick as persons. Africans put a high premium on person, and the human recognition of the patient can be seen in the shower of sympathy and concern of relatives, friends and others. The sick person is asked to fight hard against the illness. Much is done to make the patient comfortable. One does not generally become lonely in sickness. This social aspect is a laudable aspect of the African medical practice and should be preserved in view of the contemporary problem of depersonalization in modern medicine.

MODERN PERIOD

With the advent of colonialism and Christianity, African medical practice took on new dimensions. The colonial masters established general hospitals, and Christian missionaries built private ones. These hospitals fulfilled the well-felt need of stemming the high incidence of various tropical diseases. Although the quality of these hospitals left much to be desired in comparison to those of the mother countries, these hospitals were a thin edge of the wedge of the modernization of African medical practice.

From the negative point of view, attempts were made to remove superstitious practices from traditional medical practices. War was waged against magic, witchcraft, and sorcery to rid the population of pervasive fears. However, the problem was that the baby was often thrown away with the bath. There was no serious attempt to investigate the scientific merit of some of the traditional medical practices, especially diagnosis of diseases and the curative power of the traditional medicine. The prevalent attitude on the part of the foreigner was that what was native was pagan and superstitious, and therefore, bad, and the corresponding civilizing-mission attitude blandly regarded the imported medical practice as the best for the African. Although this comment is in order, the positive contributions of missionary hospitals, in particular, cannot be overemphasized. The thrust of the Christian missionary effort was to bring Christ's healing power and care to native Africans. In this respect it succeeded, and the collaboration of Christian missionaries and others is still needed for developing good medical systems in Africa.

TOWARDS THE FUTURE

As Africans step into the highly sophisticated technology of today, philosophical problems of African medical practice become more complex. If medical technology is humanized, these problems become manageable, if not, high technology may destroy some of the deep-seated cultural values in African medical practice.

As a first step in the direction of modernizing African medical practice, an evaluation of traditional medical practices should be made in terms of finding out what is of medical value. At present traditional African medical practice is surrounded with a cloud of superstition and uncertainty. There is much of high value in traditional practice. As Dr. T. Adeoze Lambo, a Nigerian psychiatrist, pointed out in comparing the techniques of traditional healers and Western techniques:

> At about three years ago, we made an evaluation, a programme of their work, and compared this with our own, and we discovered that actually they were scoring almost sixty percent success in their treatment of neurosis. And we were scoring forty percent—in fact, less than forty percent.[12]

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African herbal doctors have much to offer if only trained African researchers and others can evaluate their work and see how to integrate the curative value of African herbs into contemporary medical practice. It is gratifying to see great efforts now being made in this direction.[13]

It will take me a little far afield to discuss some of the philosophical issues raised by modern medical practice. Issues with regard to depersonalization, experimenting with human subjects, euthanesia (dying with dignity when life is merely sustained by machines and with it the fear of a living death), and cloning can be subjects for further discussion. A pressing issue related to a person's right to medical care is in point here. It may be asked whether medical care is a human right. As I have indicated before, Africans have high regard for the human person and human life. This involves enhancing the quality of human life, and medical care is an essential part of this. Hence, African governments should make a point of protecting this right by providing medical opportunities to their populations. Health care is a desideratum in Africa today. The future will be bright when African governments emphasize health care with due balance rather than military establishment.

Our discussion of the philosophy of African medical practice has revealed its various aspects and its prospects in contemporary medical practice. It has brought to light some of the problems facing a modern African doctor. The strongest argument for traditional medical practice, from the philosophical point of view, is that it is holistic; it incorporates the personal, social, physical, and spiritual aspects of man. This holistic approach to medical practice is what traditional African medical practice can offer to departmentalized and technologically oriented modern practice. While rejecting the superstitious elements of traditional practice, the modern African medical doctor has a gold mine of traditional sources to integrate into his practice.

NOTES

1. Not tribe which is a derogatory term from the colonial era.
2. John Roscoe, *The Northern Bantu*, New York: Barnes & Noble, Inc., 1966, p. 91.
3. G. T. Basden, *Niger Ibos*, London: Frank Cass & Co., Ltd., 1966, p. 55.
4. Cf. the ancient Greek concept of madness as a medium of divine inspiration.
5. See M. M. Green, *Ibo Village Affairs*, New York: Frederick A. Praeger, 1964, pp. 53ff.
6. See Lee F. Werth, "Normalizing the Paranormal," *American Philosophical Quarterly*, vol. 15, no. 1, Jan. 1978, for a discussion of a similar problem with regard to precognition.
7. See Sir James Frazer, *The New Golden Bough*, New York: The New American Library of World Literature, Inc., 1964, pp. 35ff.
8. See John Roscoe, op. cit., p. 55.
9. See James L. Gibbs, Jr., ed., *Peoples of Africa*, New York: Holt, Rinehart and Winston, Inc., 1965, p. 271.
10. Ibid., pp. 272-273.
11. David Nicol, ed., *Black Nationalism in Africa 1867*, New York: Africana Publishing Co., 1969, p. 147.
12. Basil Davidson, *The African Genius*, Boston: Little, Brown and Co., 1969, p. 151.
13. See Philip Singer, ed., *Traditional Healing: New Science or New Colonialism?* New York: Division of Conch Magazine, Ltd. (Publishers); F. O. Esho, *African (Yoruba) Case Studies in the Application of Metaphysical, Herbal, and Occult Therapies*, New York: Division of Conch Magazines, Ltd.; J. O. Lambo, *Catalogue of African Herbs*, New York: Division of Conch Magazine, Ltd. See also Africanus Horton, *The Diseases of Tropical Climate and their Treatment*, London, 1874, for pioneering research in this area. For the history of African diseases see Gerald W. Hartwig and K. David Patterson, eds., *Disease in African History*, N. Carolina: Duke University press, 1978.

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AFRICAN MEDICINE

Quite recently the Colonial Office has made an important announcement. It is that a comprehensive nutritional survey is now being carried out in Nyasaland with the object of studying the actual and potential food resources of three contrasting areas. This survey is financed jointly by the Medical Research Council and the Colonial Development Fund, and is under the leadership of Dr. B. S. Platt. It is stated to be the first of its kind, and it aims at increasing existing knowledge of the relation between nutrition and ill-health, and suggesting means whereby improvements in nutrition may be effected. The real importance and significance of this announcement will be appreciated by those who have in mind the recently published *African Survey*, by Lord Hailey, one main practical conclusion of which was that an essential basis of policy in Africa must be scientific research. This, of course, is a novel idea to politicians and most administrators, but if applied in Africa it may eventually reach this country, where hitherto policy has almost always been founded not on science but on commercial interests. As an illustration, and in the sphere of nutrition, it may be noted that the supply of milk to school children was not initiated by the Board of Education or the Ministry of Health but by the Milk Marketing Board, which had difficulty in disposing of its "surplus" milk.

As a preliminary to this Nyasaland inquiry a volume supplementary to Lord Hailey's survey is very valuable and welcome. It is entitled *Science in Africa*, and is issued by the committee of the African Research Survey under the auspices of the Royal Institute of International Affairs.[1] It is a review of scientific research relating to Tropical and Southern Africa by Dr. E. B. Worthington, a Cambridge zoologist who is now director of the Freshwater Biological Association of the British Empire and who accompanied Lord Hailey on that part of his tour which covered French and British West Africa. The author naturally does not profess to write as an expert on most of the subjects he discusses, but the range of these subjects is astonishing, and certainly the three chapters dealing with health and medicine do not suffer from the fact that they are not directly and immediately the production of a medical man. Their comprehensiveness is remarkable. In the first of these chapters the various central organizations—international, in the parent countries, and in the Union of South Africa—which control or affect the health services of Africa south of the Sahara are described; and the local hospital and health arrangements in the several colonies—British, French, Belgian, and Portuguese—are passed in review. The education and methods of employment of Africans, either as fully qualified medical practitioners, as auxiliary doctors, or as medical aids, dispensers, or nurses, are set out, and the importance of developing the second of these classes is emphasized. It is noted incidentally that "the part played by the local Branches of the British Medical Association, especially in East Africa, is considerable," and that "the Association has inaugurated special research studies"; and with regard to the differences in method between French and British administrations it is said that "the latter system may be described as seeking to persuade the native to appreciate the high standards of European medicine; the former as lowering the standard to meet current native ideas." In the second of the chapters an admirable account, fully sufficient for the purposes of the book, is given of the prevalent forms of disease. They are divided significantly into (*a*) those which are primarily due to primitive conditions of life and which may be expected to disappear with improved social conditions and organization; (*b*) those which are primarily due to insanitary conditions and which may be expected to disappear with improved housing, water supply, etc.; (*c*) those the spread of which is largely due to ignorance (venereal diseases); and (*d*) those due to malnutrition, which may be expected to disappear with an improved standard of living. Many facts relating to these diseases are here assembled which cannot be found in such convenient arrangement elsewhere.

It is to questions of the physiology and development of Africans, particularly in relation to food and malnutrition and their associated medical aspects, that the third of the chapters is mainly devoted. It is of the greatest interest, importance, and value. No definite conclusions of wide application can as yet be stated on these subjects; but at the moment Africa is prolific of experiments on controlled diet of long duration, and opportunities of collecting the details and the results of these are rapidly disappearing as local food customs break down with the relaxing of tribal organization. Dr. Worthington, with exemplary completeness, gives references to the many tenta-

[1] *Science in Africa. A Review of Scientific Research relating to Tropical and Southern Africa.* By E. B. Worthington, M.A., Ph.D.Cantab. London: Oxford University Press. (10s. 6d.)

ive, local, and individual studies hitherto made in this field and to that of Drs. Gordon and Vint into brain size and intelligence of natives and Europeans in Kenya, and stresses the urgency of such organized investigations as the Colonial Office has now set on foot. Two or three points of some general importance in this connexion are brought out. It is even more clear here than elsewhere that the preventive and curative aspects of medicine are quite inseparable, and that preventive and curative functions cannot be distributed among a sectional personnel. It is certain, too, that though particular dietary deficiencies often produce specific diseases, "in actual fact the majority of specific deficiencies result in a general lowering of vitality and resistance to disease." Again, it may sometimes be difficult to determine whether some conditions are due to the toxic effects of some common article of diet or to the deficiency of other essential elements. This appears to be the case in regard to a condition involving blindness in a people in Nigeria who feed largely on cassava. Further, a customary native practice may yield dietetic information—for example, in Nigeria again, the leaves of the baobab tree, which have a high calcium content, are crushed and eaten in soups. Precautions are always taken to avoid direct sun on the leaves during the drying process, and laboratory experiment has shown that sun-drying as opposed to shade-drying destroys the vitamin content of the leaves. Dr. Worthington's survey has many chapters of much interest besides those dealing with health and medicine; but those to which we have drawn attention are not only of great value for reference but should provoke and aid further researches, of which the results cannot be foreseen.

THE STATISTICAL HISTORY OF APPENDICITIS

Although there are few now in practice who remember the time when the word "appendicitis" was unknown in medical circles (those who object to hybrids will be glad to learn that the word probably comes from America), those over 55 can recall times when it was not in general use. Dr. Matthew Young and Mr. W. T. Russell, in their recently published report,[1] suggest that it was the illness of King Edward VII in 1902 which interested the general public in the disease henceforth usually called appendicitis. At the present time appendicitis, although it is responsible for less than 1 per cent. of the total death rate, causes nearly two thousand annual deaths. The rate of mortality, which increased in the early years of this century, has not changed much in recent years; certainly it has not declined. It is common knowledge within the profession that the earlier a patient reaches the surgeon the better the prognosis, and, so long ago as 1887, Treves advocated removal of the quiescent appendix after a series of attacks attributable to inflammation. Then there has been, within and without the profession, debate on the actiological factors; dietetic habits have been impugned. Rendle Short attributed the increasing incidence between 1895 and 1905 to a reduction in cellulose and fibre content of the diet and to an increased consumption of imported foods, especially meats. McCarrison in nine years' practice among the hill tribes of North-West India never had a case of appendicitis. The subject is therefore important enough to justify a historical-statistical study, which Dr. Young and Mr. Russell have supplied. Their sources of statistical information were not only the official mortality data of England and Wales but the clinical records of three great hospitals—St. Bartholomew's, the London, and St. Thomas's.

From the analysis of the official data the following conclusions emerge. The age distribution of mortality has changed during the last twenty years—in early childhood, 0–5, and in later life, ages over 45, the rates have increased; they have declined at intervening ages. The rate of mortality on males is 25 to 30 per cent. greater than on females, and among females over 15 single women suffer more than married women. There is little relation to urbanization, but some evidence that the rate in the southern areas of England and Wales is above the average. There is little seasonal variation. Using the social-economic classification of the Registrar-General it is found that appendicitis is one of the diseases having a higher rate of mortality in the higher social classes. Actually the rate of the highest social class is 2½ times that of the lowest. In 1915–18 the mortality from appendicitis—like that from diabetes—decreased among females at ages over 55. In the second part of the report, which, in addition to the data of the three hospitals mentioned above, utilizes published records from other institutions at home and abroad, the authors provide many instructive tables. It is impossible in the available space to summarize these. The great decline in fatality is no doubt largely due to the admission of patients at an earlier stage of the disease as well as to surgical improvements. Thus Sworn and Fitzgibbon have compared the St. Thomas's Hospital experience of 1920–9 with that of 1894–1903. In 1894–1903 only thirteen out of 438 were assigned to the group acute appendicitis. In 1920–9, 1,340 out of 1,755 belong to that group. But comparisons of modern

[1] Medical Research Council. Special Report Series No. 233. H.M. Stationery Office. (1s.)