

MEDICAL PRAGMATISM:  
A STUDY OF SICKNESS AND HEALING  
AMONG THE FÜR

(continued)

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### PART III

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Part II of the thesis has investigated sickness and healing among the Fūr with chapters concerned with the concept and classification of sickness, the way in which the sick and their kin conduct episodes of sickness, and practitioners of medicine and their various therapeutic techniques. Part III now attempts to show changes in the field of medicine, in beliefs and in practice; it then goes on to attempt to demonstrate how research of the social anthropological type can be beneficial in the planning of a technologically appropriate health service. The final chapter of Part III is the Conclusion of the thesis.

## Chapter 8

### SOCIAL CHANGE

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## 8.1 INTRODUCTION

An aspect of social change may be seen when the system of medicine within a society is examined. Social change may be determined from the literature of the area and from the personal experience and knowledge of informants. Sometimes it may be possible to exemplify the change by reference to the differences between rural and urban communities.

Two very different concepts of sickness and healing were encountered in Darfur, namely the pre-scientific and the scientific and they are both embodied in the country and modern aspects of medicine. Beliefs and practices in rural and urban communities derive from both country and modern medical systems. For the Fūr, modern medicine and modern medical practitioners constitute an equal alternative to the variety of country medical therapies and practitioners available to them. However, for officials of the Ministry of Health (or, indeed, any government officials) modern medicine is not the alternative to but the antithesis of country medicine and infinitely preferable. According to these officials, modern medicine is increasingly utilized and country medicine is 'vanishing'. This last statement may be true from a very superficial glance at the situation among the Fūr, but a closer look at the whole medical system and the ideas and beliefs of the Fūr would indicate otherwise.

Modern medicine was introduced to Darfur within living memory of the older members of the population; it has been encouraged by the state but

there has been no real pressure designed to loosen peoples' attachment to country medicine. The fact of this recent introduction means that it should be possible to piece together the pattern of social change.

Historical, environmental, political and economic factors will be outlined below in an attempt to show how they may have been instrumental in social change with regard to the medical system. Some changes can be shown to have taken place in disease pattern, choice of treatment, behaviour of the sick, their kin and those who engage in medical practice, as well as the establishments (such as hospitals and clinics) which are relevant to sickness and healing. In instances where the medical system itself could be regarded as a catalyst in social change, this will be indicated.

## 8.2 SOCIAL CHANGE

Social change, in general, throughout most of Darfur seems to have been patchy, and almost imperceptible in some areas of social life. History, before the sixteenth century, is mainly conjectural but it would appear that the farming life of the rural Fūr has not changed drastically for several hundred years, especially in the remote villages of Jebel Marra. The land in Darfur offers little more than cultivation at the subsistence level, even though the rainfall is greater in Jebel Marra and the Western District than in the rest of the Region. Neither the foreign Condominium government, nor the present Republican State government, has seen fit or had the necessary capital to develop Darfur, although it has been considered

as a possible bread-basket for Sudan. The Fūr do not grow crops which would have a market abroad (such as tea, coffee, sugar or cotton). Thus, from a colonial point of view, they had little to offer and were, by and large, left alone by the Condominium government. Few officials were posted to Darfur, except a governor and a district officer in each district, whose job it was to maintain law and order - not a particularly onerous task among the relatively peaceful Fūr people.

The land of Darfur does not seem to have other exploitable resources which could be developed by industry and technology; at least, the area has not appealed to prospectors yet, although it seems there is oil in Southern Kordofan - of uncertain quantity as yet. Perhaps it is partly due to its lack of obvious exploitability, but its distance from the centre (the Nile, Khartoum - the seat of government - and the Gezira) is also a significant factor when considering the effects of the Condominium period and Independence which followed. These effects do seem to have resulted in a somewhat diluted form of social change in Darfur, when compared with an area such as the Gezira.

Some Fūr farmers on the lower slopes of Jebel Marra and in the villages along the banks of the Wadi Azum grow some cash crops for bulk sale, but the majority grow a small area of such crops which are sold in amounts which will yield enough cash at the time to pay for some basic imported 'luxury'/necessities such as soap, tea, sugar, shoes, clothes and, occasionally, household items. As Barth has observed, it is middlemen who buy up these small amounts of cash crops and transport them to sell in bulk in bigger markets, (Barth, 1967). Little more variety

than the above-mentioned items are found in the markets of Darfur, apart from the large provincial markets where electrical and labour-saving goods are available. Electricity is only found in the province capitals and television programmes are received in Nyala and el-Fasher. However, a few households throughout the rural areas have a transistor radio, whose batteries are changed whenever sons are home on vacation.

Formal education and modern medicine were brought to Darfur in the Condominium period and their institutions have gradually increased in number. However, although Primary Health Care is now within the reach of the majority of Darfurians, it is of the 'absolute minimum commensurate with effective treatment' (Matheson, 1981:3). It was designed, however, to put the emphasis upon prevention rather than cure nowadays (and so is essentially at odds with the aspirations of the majority of the medical profession), but it will be some time before its effectiveness can be judged.

Thus, it would seem that there was no government desire to achieve agricultural or technological development, nor to develop resources, which could be said to have brought about the changes which are seen to have occurred within the last few decades in Fūr social life. With regard to modern medicine and formal education, neither or these has been thrust upon the Fūr, or upon any Darfurians. In fact, the people of Darfur have, by selection and self-initiated projects, worked hard to bring both education and modern medicine to their small scattered rural communities, as well as improving the existing facilities available in the district headquarters.

According to a few educated urban informants (in addition to the government officials) country medicine is decreasing and this is due, they believe, to the fact that 'people are learning about modern medicine'. In support of their belief in a decrease in country medicine, urban informants also relate reports concerning fraudulent feqis who make miḥaya by simply adding ink to water, and hejabs by folding and tying blank paper into the usual shape and size. These stories are not without foundation as some feqis have, in the past, been found guilty in the courts of deceiving their clients. The fact that these fraudulent feqis have been exposed is believed to have made prospective clients reticent to consult feqis as a whole. The fear of discovery is said by urban informants, to have frightened some feqis and prevented them continuing, while others would have been dissuaded from embarking on such a career.

Participant observation, interviews with healers and the rural and urban surveys carried out in Darfur show clearly that practitioners of country medicine are still being consulted in both communities. Not unexpectedly perhaps, they are consulted to a greater extent in the rural areas. In general, if an individual does not improve sufficiently, or if improvement is slow, then there is a tendency to consult a different practitioner - if a modern medical practitioner was consulted originally, then a practitioner of country medicine may be chosen the second time unless it is possible (and it usually is not) to visit another modern medical practitioner; if a practitioner of country medicine is chosen on the first occasion, a modern medical practitioner will be sought for a second consultation. There are always some individuals who feel that by

consulting both types of practitioner concurrently, they are getting the best of both worlds and a number of rural and urban individuals were found to favour such a comprehensive approach to therapy.

Results obtained in the surveys of the rural and urban Fūr communities suggest that the advent of modern medicine has not yet caused any substantial drift away from practitioners of country medicine and healing in the rural areas but, rather, has increased the options open to those in need of therapeutic measures. It has perhaps also meant that a majority of individuals would first seek modern medical aid rather than country medicine but the country system is still utilized as a back-up or an alternative, should the return to health prove tedious or uncertain. To a lesser degree, this is also the case in the urban area.

From participant observation in the Western District, it would seem that a large number of practitioners of country medicine are still consulted, but that the number of their clients has fallen considerably in the urban areas. Practitioners of country medicine themselves say that previously they might have been asked to treat several clients a day, whereas now they probably see only two or three per week. Only a few country practitioners in the province capitals still have thriving practices, possibly seeing some ten to fifteen clients per day. In fact, a high proportion of the clients of country practitioners today are seeking prophylactic measures rather than active therapy.

Certainly, it would be true to say that the hospital at Zalingie gives the appearance of a fairly busy establishment,<sup>1</sup> particularly during

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1. No reliable statistics are available for out-patient attendance.

the morning hours. It must be remembered, though, that each patient is probably accompanied by a kinsman or friend. Nevertheless, by my own estimation some 30-50 patients attended daily, depending upon the farming season - fewer attended during the time of ground clearing and planting, and at harvest time - during the period of fieldwork. The number of people nowadays attending the Zalingie hospital is, however, greatly reduced when compared with the number in the 1930's-50's, when Sayyid Usman Muhammed Kheir was the medical assistant in charge. He recalled times when there were more than 100 in-patients alone and numerous out-patients during times of epidemics. Vaccination and anti-biotic therapy have successively brought about a change in disease pattern in this instance. Nowadays the majority of admissions are for emergency therapy, as are many out-patient treatments; other complaints are often chronic or minor. Thus, modern medicine, having developed antibiotics by the time of the development of the Sudan health service, was able positively to affect the situation with which it was presented and in this way gained many advocates. Indeed, people often referred deferentially, in their replies to questions concerning epidemics and their management, to both official policy and medical personnel; many reiterated the following statement: 'the government brought the medicines to cure'. Medical personnel as government employees, are held in very high (affectionate, rather than awed ) regard in Darfur for this reason. Thus, it is with the advent of life-saving drugs that the practices of country practitioners began to be affected, although some individuals have maintained a proportion of their practice unheeded, for they are the

acknowledged masters of psychological medicine (in modern medical terms), treating those who suffer from depression, anxiety or just unhappiness as well as those who are acknowledged by the community to be 'majnūn' (mad or jinn-possessed).

Social change can only be said to have taken place when there is a 'significant alteration of social structure (that is, of patterns of social action and interaction)', (Moore:1968:366).<sup>1</sup> In rural Fūr communities, where only minimal health care is yet available - and that often at some distance - it cannot yet be said that there is a 'significant alteration of social structure'. However, there undoubtedly has been change, varying in degree from place to place, with regard to the field of medicine in Darfur.

If the two communities studied are taken as being representative examples of the general situation in rural and urban settings, then social change of different degrees can be seen. In the rural situation, the institutions and settings of modern medicine are minimal and not much in evidence. However, change in disease pattern has taken place within living memory, with the result that people nowadays tend to voice a preference for treatment with modern medical drugs, possibly following consultation with a modern medical practitioner. For a number of reasons (e.g. distance, time, lack of drugs), they are not able to carry their wish through to fulfilment and they are obliged to consult practitioners of country medicine and to use country medicines. Formal education and health education have not reached the stage yet, where more than a handful of rural farmers are aware of even the most basic of modern

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1. In International Encyclopaedia of the Social Sciences.

medical ideas concerning hygiene, prophylaxis or sickness cause. Their desire for modern medicine is based purely upon their firsthand knowledge that, in many instances, modern medicine has saved lives, reduced pain and suffering and enabled full rehabilitation to take place. Where people are more ambiguous is in their ideas about sickness cause; their belief in causation being determined, probably, by type of sickness as well as by length of time suffering the indisposition. Apart from mental sickness (which, it is believed, can only be treated by a feqi), there seem to be no particular beliefs connecting healers with the sicknesses they treat, although sufferers of systemic sicknesses tend to consult practitioners who are generalists, such as feqis, owners of roots, home therapists or practitioners of modern medicine, while those with more specific problems consult the relevant practitioner, such as a basīr, an eye specialist or a rope-midwife.

In the urban setting, the institutions and settings of modern medicine are obvious, though by no means maximal. People prefer to, and in the majority of cases actually do, consult modern medical practitioners and use modern medical drugs. They were found to have a wider, though perhaps not very deep, knowledge of modern medical ideas regarding health and sickness. Here, too, people are ambiguous in their ideas about the cause of sickness, particularly in the case of unexplainable length of sickness. This situation can be seen to have significantly changed patterns of social action and interaction, although as yet, there remains the change in beliefs to take place; so far they can only be said to have changed in emphasis.

Thus, depending upon their situations - as Fūr villagers or neighbourhood residents living near to Zalingie hospital, individuals would have differing ideas about the various changes which have taken place over the last 50 years, or even over the last few years, and the degree of change. Wherever one stands, it must seem that some change has begun and that a gain in momentum is probably taking place with the development plan for the Western Savanna now being implemented.

### 8.3 HISTORICAL AND ENVIRONMENTAL FACTORS AFFECTING THE MEDICAL SYSTEM

The process of Islamization in Darfur (and in Sudan as a whole) could be said to be incomplete because, at the time of writing, Sudan still has a secular government with Islam as the religion of the northern part of the country. Darfurians have witnessed changes of leadership from indigenous hereditary rulers to foreign colonial officers and, more recently, to an indigenous governor, unelected but approved by the majority; he was chosen, with popular support, by the Khartoum-based President of the Republic. Education and medical services began to be developed in colonial times and are still slowly expanding. Communications with and within the area are still poorly developed, although some progress is evident recently; nevertheless, emigration from the area in search of employment is not compensated by migration to the area. Apart from this, there is an environmental change and the area has suffered, with the rest of Sub-Saharan and eastern Africa, from a reduction in rainfall which, it is believed, could continue for the next fifty years (Winstanley, 1973:194).

The decrease in rainfall is such that informants remark on the almost complete absence nowadays of perennial streams in Jebel Marra; the flow of streams now is seasonal and brief.

Expanding herds of nomad cattle seeking grazing, and tree-felling for fuel has resulted in decimation of some areas. A vicious circle has resulted and is being continued by the decrease in precipitation, which prevents growth of vegetation which in turn means less transpiration and, consequently, a further decrease in precipitation. This cycle of events is known as desertification.

In 1978 a public corporation, the Western Savanna Development Corporation (WSDC), was established, with the purpose of activating local administration as well as village and nomad communities, to implement programmes to manage and develop local resources. The area of influence of the corporation is that region constituted by the southern provinces of Darfur and Kordofan Regions. It incorporates the Jebel Marra Project of the Western District of Southern Darfur and is backed by the World Bank in a multi-million pound investment programme. The WSDC will no doubt be the originator of much social change in the very near future; as far as the fieldwork area is concerned, part of it is within the area of the Jebel Marra Project, which has been in existence now for some 20 years.

#### 8.4 POLITICAL AND ECONOMICAL FACTORS AFFECTING THE MEDICAL SYSTEM

The Region now known as Darfur has had many changes in its size, type of leadership and government policy. Before becoming a Muslim sultanate, it

was almost certainly the realm of a divine king, ruled over in both cases by an autocratic monarch. Many aspects of divine kingship survived into the twentieth century. However, the Turko-Egyptian regime, the Mahdiya and the reign of Sultan Ali Dinar, (i.e. 1820 to 1916), meant that Darfur was subject to a changing political situation for nearly a hundred years, before its annexation to the Condominium on the death of Ali Dinar. Soon after the annexation of Darfur, at the time of the change of policy from Direct to Indirect Rule in 1922, an ordinance was passed making Darfur one of several 'closed districts', which required a permit from the Governor or the Civil Secretary for all non-Darfurians on entry and departure. This meant that Darfur was effectively cut off from the rest of Sudan and very few travellers and merchants were able to journey to and from or through the area.

Following Independence (1 January 1956), many Darfurians travelled to Khartoum and the Gezira in search of work, especially when the Managil Extension was planned to double the size of the Gezira Scheme. The first phase of this extension was opened in 1957 and created opportunities previously unrealized for those migrant workers who travelled from Western Sudan.

The migrant workers in the Gezira and Khartoum were exposed to a variety of new beliefs, ideas and values, as well as agricultural techniques. They would also have seen and been able to purchase in the markets of Khartoum and Wad Medani, goods which they may never have known existed before. Certainly it would not have been long before the people of far-off Darfur began to realize that there was a great gulf between their own way of life and that of the urban inhabitants of the northern and central parts of Sudan.

During the early days of the Condominium government in Sudan, the only practitioners of modern medicine were expatriate doctors and nurses serving with the armed forces, and these were stationed mainly in Khartoum. The Kitchener School of Medicine, now the Faculty of Medicine of the University of Khartoum, was founded in 1924 and began to train Sudanese doctors. A school for the training of medical assistants opened in Omdurman soon after this, while a school for midwives had already begun in 1920, also in Omdurman.

Perhaps partly due to its geographical remoteness, which was enhanced by the 'closed districts' ordinance, Darfur saw little in the way of modern medicine until the 1930's. It has been pointed out that there was no great interest in providing a country-wide medical service until the 1920's, when it became 'important to expand services to a wider section of the population as a means of legitimating colonial control' (Gruenbaum, 1979:12-13). However, the services extended to Darfur were hardly of a scale to be interpreted in this way. When the first medical assistant arrived in Zalingie in 1928, he worked from a small dispensary in the local government offices. This was moved and enlarged in 1930-31, but functioned with very few nurses and midwives. The chief nursing officer and chief midwife (both expatriats) used to visit the provinces on tours of inspection and encouraged women in particular to go to Khartoum to train. Slowly the number of trained and experienced medical personnel increased and dressing stations and dispensaries could be established and staffed during the later 1930's and the 1940's. By the early 1950's, six dispensaries had been opened and these, with Zalingie hospital and twelve small dressing stations, form the network of the medical system as it is today.

Before 1954, one of the doctors from el-Geneina or el-Fasher hospitals visited the hospital at Zalingie every few weeks but, according to the medical assistant Sayyid Usman Muhammed Kheir, there could have been a doctor in Zalingie from 1936 when he was to have been transferred to el-Fasher. Hearing that he (Sayyid Usman) was to leave them, the people of Zalingie objected strongly and asked the governor to allow Sayyid Usman to stay. So he remained. Sayyid Usman considered this decision to be 'a crime' because it resulted in the Western District waiting nearly twenty years before a medical officer was finally appointed to take charge of the hospital and generally to supervise health care in the district.

As mentioned previously, Sudan is one of the countries placed in the category 'low income countries' by the World Bank.<sup>1</sup> Among the characteristics of a low income country is that of poor communications, especially with the more distant parts of the country - the terrain is difficult and the distances are great. This means that it is not easy to keep hospitals and other health care units supplied with drugs, equipment and other requirements, although many of the above items are manufactured in Sudan.

The economic situation has meant that there have been few innovations with regard to the health services in Darfur in recent years; that of the training of the new grade of medical personnel, the community health worker, is probably the most significant. This nine-month programme gives young people who have completed their junior secondary education and who come from as many villages as possible, a broad practical

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1. World Bank Report 1979.

understanding of sickness and health, as well as the skills necessary for basic prophylactic and therapeutic measures. When these community health workers return to their homes to begin their work, they are in a position to educate their own kinsmen and neighbours in basic health matters and to treat and advise with regard to the more common ailments.

#### 8.5 CHANGE IN DISEASE PATTERN

As has already been indicated, pilgrimage, trade and labour migration are believed to have had a significant effect on health and sickness in Darfur (see 2.10, p.75). However, in more recent years a change in disease pattern which has taken place in Darfur due to drug innovation, has meant that people do not now fear a number of epidemic diseases which used to prove fatal in a large proportion of those affected. Due to the fact that modern medical drugs have either made treatment or prophylaxis possible (or, as in the case of smallpox, have eliminated the disease), many of the traditional practices previously associated with epidemic diseases have now been discarded. Such traditional practices - the marking of houses which had been spared and those which had suffered, and the 'inviting' and 'bidding farewell' of diseases<sup>1</sup> - are referred to by Sayyid Usman, the medical assistant, in his account of change in disease pattern and the state of health.

There is no statistical material available as a record of the early days of the medical services, but several informants had worked in the

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1. See the account by Sayyid Usman Muhammed Kheir, (p.411).

health service from those times. In the opinion of these senior medical assistants and nurses, apart from the obvious changes in pattern of epidemic diseases, there had also been change in other diseases such as venereal diseases, gastro-enteritis of children, eye complaints, protozoal and helminthic infestation, and malaria. Sayyid Usman had noted a reduction in venereal disease with the introduction of the drug Penicillin 606 but it seems that knowledge of and familiarity with a cure has now resulted in the number of infections rising again - the most likely reason being incomplete courses of the drug. Parents of small children in the urban area, at least, are becoming more aware of the treatment which can save the lives of infants with gastro-enteritis. The mothers are involved as the principal therapists, guided by a medical officer or nurse, and this has proved a good teaching method, for the mothers then can encourage other mothers to seek help when necessary. The breeding places of mosquitoes can now be treated to reduce the population and, thus, also reduce the threat of malaria. The disease itself is generally more manageable nowadays, although there are some resistant strains developing in this part of Sudan.

Ante-natal clinics have been established in the urban areas and larger villages where there are dispensaries, and health visitors and midwives work together to educate the pregnant women in general health care as well as care of the new-born baby. In this way, women are becoming involved in the health care of the community. Whereas previously, the father would decide when to take sick children to the modern medical practitioner, it is now the mother who does so, apparently often without

informing the father. (However, it should be remembered that Fūr women are independent and self-reliant and would take on this responsibility without a second thought.)

Although modern medicine has been able to make some considerable headway into improving health prospects for Darfurians, there is now a new and increasing problem - that of road traffic accidents, as transportation gradually increases.

#### 8.5.1 A personal account of change in pattern of disease and state of health

This account is presented in the words of the pioneering medical assistant, Sayyid Usman Muhammed Kheir, who took up his duties in Zalingie in 1928.<sup>1</sup>

'On my arrival in Zalingie in 1928, I took charge of and began to organize the medical services for the district. The dispensary, which later became the hospital, was greatly overcrowded at that time. There was no system of beds and people brought their own bed or lay on the floor. Sometimes there were as many as 150 people receiving in-patient treatment at any one time; normally there were 80-100 in-patients.

The main diseases treated in the hospital at that time were smallpox, cerebro-spinal meningitis, relapsing fever, venereal diseases, Bilharzia (schistosomiasis), malaria and, to a lesser degree, leprosy. During one epidemic of smallpox I caught the disease myself and had to go to el-Fasher for treatment.

Everyone who had venereal disease was treated and they were encouraged to bring along their partners; we gave penicillin for gonorrhoea and '606' for syphilis. People became very aware of the health problems attached to venereal disease and came to the hospital for treatment. In this way the disease was greatly reduced. Drugs have drastically altered the prognosis of many diseases, the treatment of schistosomiasis and leprosy have greatly improved. By treating diseases which were curable, especially those which needed only a few injections, we gradually gained the 'trust of the people.

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1. Sayyid Usman Muhammed Kheir was interviewed three times during the year 1979 and provided a wealth of information about medical beliefs and practices in Darfur. He died later that year.

I encouraged patients to bring their fegis into the hospital, for psychological reasons;<sup>1</sup> they were not allowed to use roots but were encouraged to give their clients mihaya and bukharat. Then, even if the patient died, it was realized that the hospital was not to blame as all possible treatment had been offered. In this way it was possible to maintain good relations between traditional healers and practitioners of modern medicine. It also meant that people began to learn about the advantages of medicine.

In my early days, I found that people would try to hide the fact that there was sickness, particularly when it was of the epidemic type. They would use some method of protection against the disease if they were unaffected so far and would place a green branch<sup>2</sup> in front of the house of a sick individual to warn others of the danger. Houses which had escaped would be marked with a white sign to show a 'white heart',<sup>3</sup> in the hope that the disease might pass by.

When I suspected an epidemic and the people denied deaths, I used to take a walk, on some pretext, and go to look at the graveyard. After counting the graves, of children and adults, I returned and confronted the people with this information and they admitted their losses. Then we gave those who were still healthy preventive therapy, such as smallpox vaccination, if it was available.

Sometimes we saw people sweeping out their houses and singing or chanting words of farewell, either when the disease had left a house or had seemed to pass by, leaving the occupants untouched. To say farewell in this way indicates that the visit is completely over.

There was also a belief that if you brought the disease, then it would not be so serious or fatal. Mothers used to take their children to the house of an individual with smallpox and put some of the infected matter from the sick person onto the child, as a kind of prophylactic measure. As a result, many children died.

When an epidemic was dying down, when it was 'going' as they said, the people used to make festivals at the eastern side of the village and hold a karama, as a thanksgiving for the departure. Now, no-one believes in this.'

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1. fegis still visit their clients in hospital.
  2. Green branches are used generally as a warning, or perhaps as a boundary, in Africa. (They are always placed at a distance behind broken-down lorries on the road to warn on-coming traffic.)
  3. White heart = good heart, with implied openness and invitation, charming the spirit of smallpox to enter the house and then pass on without harm to the occupants.

Sayyid Usman accounted for the change in attitude of Darfurians as being due to three factors:

'Firstly, it became apparent to everyone that some people were cured in hospital. Secondly, with the level of education reaching an effective level, people were learning about the new system of medicine and how the epidemic diseases could be controlled; also, teachers were using the hospital facilities and the school children were encouraged by this example. Thirdly, by the time of Independence (1956), people began to travel to Khartoum and the Gezira in search of work. They found a new and very different way of life and when they returned home, they spread the news of what they had experienced.'

Sayyid Usman's account of the diseases and state of health of the population of Zalingie and district during his days as medical assistant (1928-1945) clearly shows that much has been achieved in the control of epidemics (including the eradication of smallpox) and also in the field of health education particularly in Zalingie. In 1962, while a member of the Local Government Council, Sayyid Usman drew up a plan for the general improvement of the health of the community. His plan was accepted but was not put into action due to lack of funds. The plan involved the use of a bus which would tour the district with a team, made up of an experienced nurse and a representative from each of the following: the Ministry of Agriculture, Veterinary Services, the Ministry of Works (for the roads) and the Forestry Department. These representatives should each set about advising how his own field would help in improving facilities for each village or group of villages and put some measures into practice. After the advice and its implementation, films and other visual aids could be used to back up the innovations.

### 8.5.2 Some demographic data

Demographic data available for Sudan (see Table 55) are patchy as, of course, are those for Darfur and the Western District of the Southern Province of the Region. As my research was oriented towards concepts of sickness, the behaviour of the sick, their kin and healers, and healing techniques in a Muslim community, lack of time and funds prevented the undertaking of epidemiological surveys. However, the little demographic material available (despite the different years of publication) will indicate the severity of the health problem.

The rural rate of population increase for the Western District in 1956 was lower than that of Darfur as a whole. This may be partly due to emigration from the Western District to other parts of Darfur and to other parts of Sudan, but it has been suggested by an agricultural consultancy, that it must also be associated with a low rate of fertility and a high rate of mortality, (HTS, 1977). The infant mortality for the two sectors of Zalingie is high. Figures for child death rate are not available, but that for Sudan in 1977 is also very high and one can only suppose that the figure for Zalingie would be, similarly, high. The majority of childhood deaths in low income, developing countries are due to childhood diarrhoeas, pneumonia and protein-calorie malnutrition, (Jelliffe, 1966:13.1). These symptoms are often seen during an attack of one of the childhood diseases such as measles, or during the weaning period. Other diseases of childhood from which children die, often complicated by the above-mentioned three symptoms, are malaria, anaemia, intestinal helminth infestation, tuberculosis, whooping cough and accidents, especially burns.

Table 55 SOME DEMOGRAPHIC DATA

	SUDAN	DARFUR	ZALINGIE (two sectors) CA 351	CA 352
Crude birth rate (live births per 1000 popn.)	52 (i) 49 (ii) 48-50 (iii) 45 (iv)	42 (i)	47 (i)	36 (i)
Crude death rate (per 1000 popn.)	19 (i) 21 (ii) 20-25 (iii) 19 (iv)	13 (i)	15 (i)	18 (i)
Child death rate (1-4 yrs) (per 1000 popn.)	31 (iv)	?	?	?
Infant mortality (0-1 yrs.) (per 1000 live births)	94 (i) 96 (ii) 135-145 (iii)	75 (i)	96 (i)	134 (i)
Life expectancy at birth	46 (iv)	?	?	?
Crude rate population growth	2-3% (iii)	?	?	?
Literacy	20% (iii)	?	?	?

(i) 1956 census data - from HTS 1977

(ii) 1972 " - from Annual Statistical Report (1973) of Min. of Health Khartoum  
 (iii) 1973 " - from National Health Programme 1977/8-1983/4  
 (iv) 1977 " - from the World Bank Report 1979

When their children are healthy, people tend not to want to talk about possible childhood sickness. Thus, as this was not central to my research and a painful subject for mothers in particular (many families have experienced death of babies and small children), questions were generally not asked about infant morbidity and mortality. However, the subject was raised occasionally by fathers who had lost children, who were hopefully making enquiries about what could be done to avoid the situation should it threaten again. As there was apparently no outbreak of measles or other infectious disease during my stay in Zalingie and Barei, information regarding babies and children is from key informants, fieldwork assistants and colleagues.

When children become sick in rural areas, and sometimes also in the urban setting, they are not always taken to the practitioner of modern medicine. When the disease is measles, for which they know there is no cure but for which they do not realise the importance of symptomatic treatment and of treatment of complications, mothers often go to the feqi for miḥaya. They then return home to pray and weep for the child to recover. However, with the setting up of mother and child care clinics in some bigger villages and urban areas, mothers are beginning to be taught how to rehydrate their babies and how to bring down the temperature. This is of prime importance because it is the mother's first, instinctive action to cover her baby completely and to keep the child well wrapped up and also not to insist on the child drinking when he or she refuses, as children often do when sick.

The picture which presents itself today, of fairly healthy individuals - many of whom live to a great age and maintain their

independence - must be set more accurately in its context, against the background of the high rates of mortality of infants and children. This would then indicate that in Darfur, and particularly in the Western District where fieldwork was carried out, it is only the fittest who survive childhood and infancy. Having accomplished this against some considerable odds, they then tend to be fairly healthy adults, and since the prevention, eradication and possible curing of formerly fatal epidemic diseases, live out their lives with a minimum of debilitating disease.

The situation in Darfur is one which needs to be regarded with caution for it is one of potential danger to the health and life of the entire population. The land is becoming less productive, due to the continued use of traditional farming techniques where there is now a decrease in rainfall. Nowadays the land has to support a much greater animal population (following effective animal health care and preventive measures) as well as a slowly increasing human population. All this is occurring at a time when there is a possibility that the decrease in rainfall could continue for another 50 years, (Winstanley, 1973:194).

#### 8.6 CHANGE IN BELIEFS ABOUT SICKNESS CAUSE

Informants who were senior nurses, medical assistants and teachers who had been working in the 1930's and 1940's (and one in the later 1920's) were of the opinion, when interviewed in 1978 and 1979, that beliefs about sickness cause had changed dramatically. They gave examples of sickness

cause which had been in popular use during their early years in the health service. The beliefs which they listed included the evil eye, jinns, other (evil) spirits and sorcery, with an overall belief that, whatever the problem, it was due to the will of God.

According to informants who responded to fairly extensive questioning throughout the period of field research, sickness is still generally considered to be due ultimately to the will of God. This belief is in line with Islamic teaching and is a basic concept which is sometimes not elaborated, although the majority of people do have some idea of and belief in other, intermediate, causes. These other causes have been analysed here (in Chapter 5) as falling into two categories which have been termed extrinsic and intrinsic. The extrinsic causes of sickness given by informants are comprized of environmental conditions and mystical agents (the latter having changed little from those which informants, who had been working in the health or education services 40-50 years earlier, had listed). The intrinsic causes are of social and ritual conduct and the factors which affect the physical and mental state.

As the introduction of modern medicine into Darfur took place at a time when several severe outbreaks of epidemic diseases occurred, it is not surprising that the practitioners who arrived to deal with these epidemics, heard of the people's beliefs that they were caused by (what has been termed here) 'mystical' factors, namely shaytāns, jinns, the evil eye and sorcery. Cerebro-spinal meningitis and relapsing fever were epidemic at this time and smallpox was endemic. The death toll was extremely high in all cases, and people were fearful of the diseases.

Under such circumstances, it is not surprising that the practitioners of modern medicine heard little about the lesser and more mundane aspects of sickness suffered by the Darfurians.

When questioned about their beliefs concerning sickness cause, it appears that mystical factors are believed to be the cause of the perplexing and otherwise inexplicable group of symptoms characteristic of mental illness and emotional disturbance. Where the causes of other types of sickness are concerned, it is not possible to tell with any certainty, which ideas are new and introduced in the early decades of this century, although the concepts of mikrūb and jurthūm ('tiny animals, too small to be seen, which enter the body and cause sickness', as informants explained these terms, which are translated from Arabic as 'microbe' and 'germ') would seem to be of recent introduction. The possibility of one individual 'catching' a disease after being in the presence of another individual already sick, is indicated by beliefs regarding smallpox. Apparently, mothers tried to 'invite' the disease by asking a sufferer to spit on their child or by touching the children with infected matter from a pock, believing this would lessen the severity of the disease.

Inevitably, with the increase in motorized transportation, there has been an increase in accidents and injuries resulting from them. A number of male informants had received serious injuries (a partial quadriplegia and a traumatic amputation at the elbow among them), and a small girl was knocked down by a lorry and subsequently died from her injuries, during the period of fieldwork. None of these injuries was attributed to anything but the accident and the will of God. The idea

that 'chance' or 'mischance' can be implicated in sickness cause is much more prominent among urban people. However, the concept of chance/mischance was only accepted as a possible cause of sickness in hypothetical instances; it was never suggested by informants as a cause of personally experienced sickness.

The responses made to questions in the survey questionnaire regarding the cause of sickness are bound to have been somewhat brief, by the very nature of form-filling, but it became clear from further interviews that most people have a wide range of concepts concerning sickness cause. However, the results of a single questionnaire administered in 1979 or 1980 cannot show that beliefs about the cause of sickness have changed radically (i.e. from being, apparently, predominantly mystical to being predominantly non-mystical or natural), as was being suggested by the more scientifically orientated informants. Nevertheless, a change of emphasis is indicated. The emphasis, where a cause of disease was offered by informants, is away from mystical factors. This change in emphasis on the factors believed to cause sickness has come about, apparently, slowly over the last 50 years and is almost certainly affected by two factors: (i) men's wider knowledge and experience of the world outside the community, gained while studying the Qur'an as muḥajarīn and also by travel and labour migration and (ii) education - of men and their sons. (Although the education of girls is increasing, they do not enjoy the facility of discussion with their parents and other kinfolk, being immediately involved in household activities with their female relatives, while boys generally sit with their elders and talk at length, often discussing their newfound knowledge.)

In addition to suggesting more causes of sickness than the rural people, the urban people suggested a greater number of possible extrinsic and intrinsic natural causes of personally experienced sickness. However, in the hypothetical case, more urban people suggested extrinsic mystical causation, (i.e. by God).

The two factors mentioned above, of men's contact with the outside world and education, greatly increased the awareness of the people of Darfur to other life situations, either by personal experience or via members of the family. Darfurians soon became conscious that the facilities provided for them by the state had, for a long time, been less than favourable when compared with other areas. The area of disparity which seems, to them, to be particularly marked is that of health. Educational prospects have increased and are fully utilized, though more schools are needed if all children are to receive a primary education, but there is at least one member of most settled families who attends or has attended school. Thus, in most families there is at least one individual who has been exposed to ideas, beliefs and values which are at variance with the traditional. Those with some education are respected in the community and are generally sought to give advice due to their experience of the world outside the physical and conceptual boundaries of the community.

Transistor radios are found nowadays in many homes in the urban area and also in some village homes. The programmes of Radio Omdurman and various world services broadcasting in Arabic can be received and the information gained from them emphasizes the remoteness of Darfur. People

who have to walk 6km. for an aspirin or to call the midwife have heard about heart transplants (news of these came during fieldwork). Darfurians are eager to have an improved medical service and would willingly involve themselves in self-help schemes, given the initial directives and supplies. As in the field of agriculture, the Fūr have been keen to experiment with new techniques, so too, the majority of them are inclined to try new therapeutic and prophylactic measures and are particularly interested in health education. In a few villages they have been able to build new dressing stations or to increase the size of a dispensary.

Along with their practicality and their 'countryman's knowledge' of the land and the seasons, goes the Fūr open-mindedness in experimentation, which has been proved in the field of agriculture. They give the impression of having a sense of security in the land, especially when the rights to the land concerned had been bestowed upon their ancestors by one of the sultans. Even if they have no land rights by privilege, they have usufructuary rights. Perhaps this basic security is, at least partly, responsible for providing a suitable background for the adoption of new beliefs and practices in major sections of Fūr life.

#### 8.7 CHANGE IN RESPONSE TO SICKNESS

Response to sickness entails seeking relief, either by self-determined administration of therapy or by consulting a practitioner of medicine who will then prescribe what he or she considers to be suitable treatment. Social change occurs in choice of practitioner and associated therapy, and also in the evaluation of practitioner and therapy.

There has been a change in practitioner consultation in Darfur, due to the advent of modern medicine and the modern medical practitioner. Nowadays, according to the survey questionnaire results, the majority of urban people would like to be treated by a practitioner of modern medicine and many have already received such treatment during a past episode of sickness. Many rural people express a wish to have modern medical treatment should they become sick, although a significant number in fact consult a practitioner of country medicine, either alone or in conjunction with a practitioner of modern medicine.

In rural communities in Jebel Marra, an oft-consulted healer is the general practitioner who administers injections of modern medical drugs. This type of practitioner was only encountered in the rural situation, possibly due to the fact that nurses often give injections, privately, in the urban areas.

The popularity of such practitioners would seem to stem from two factors: their ability to give modern medical drugs in the most acceptable form (i.e. by injection) and the fact that they are 'locals' of Darfur, usually of the mountain people and thus, there is no 'stranger-danger' attached to them as there might be to a medical officer sent from Khartoum.

While the popularity of the general practitioner is increasing, according to some specialist practitioners of country medicine, their work is decreasing. Basīrs and eye specialists are relatively seldom consulted these days because it is widely known that good results are obtained, with less pain and trauma, at the hands of a medical officer or a surgeon. Rope-midwives are still called upon to deliver babies and to

care for new mothers, but the generally younger, modern medical midwives (nowadays to be found within fairly easy reach of the majority of villages) are becoming more popular. These young women are working in their own home districts, known by the majority and related to many. Those encountered during fieldwork were energetic and keen to promote their newfound professionalism. It is these women who are at the forefront of social change in the field of medicine in the rural areas. On them is dependent, to a great extent, the acceptance of modern medicine by the majority of rural women. The trained midwife is well accepted in urban areas by now, but this is the one area where the rural people are a little slow to take advantage of modern medicine. This may be due to a variety of reasons. The trained midwife has no miracle therapy which will shorten labour and she may or may not have pethidine for pain. Her task is to carry out ante-natal check-ups and to deliver babies (performing an episiotomy, if necessary) in the most hygienic way possible, or to assess the situation and send the mother to the dispensary or hospital if she foresees a problematic labour or if labour is protracted. Thus, if the labour is trouble-free, the women may feel that they gain little by being attended by the modern medical midwife. If the labour is problematic, the midwife may only be able to advise going to the hospital. Her skills are not immediately apparent to the uninitiated and her attendance on a woman who has delivered may be for four days only, rather than the seven days which the rope-midwife is prepared to observe to the mother and new baby.

As has been noted earlier the community health worker's presence (in the village where fieldwork was carried out) seems to have influenced

the rural people towards choosing modern medicine to a greater extent since the survey was carried out. In the young community health workers, the rural people find the type of practitioner of medicine with whom they feel most comfortable - a Fūr, to whom many are related, who understands their problems and who, literally and metaphorically, "speaks their language". The only drawback is that his supplies of drugs sometimes run short before the next delivery arrives.

Rural mothers are eager to have their children treated by a practitioner of modern medicine and take sick children to the dressing station or dispensary, while fathers (in the survey) said they would prefer to try their own methods of treatment on their children. It would seem that nowadays they do not get the opportunity unless a sick child fails to recover after modern medical therapy, but even then a mother may insist on taking the child to the hospital - and the female relatives would probably support her in this.

Associated with the change in choice of practitioner of medicine and almost inseparable from it, is the change in choice of therapy. Since modern medicine became available to the people of Darfur, they have it seems, been eager to explore its potential. This has meant that, in some cases, familiarity has bred contempt due to inappropriate use. For example, it is a fairly common occurrence among people everywhere to offer a medicine prescribed to them, to another sufferer with apparently similar symptoms. In such an instance, the drug may be ineffective in the treatment of the new condition, for one reason or another; it may be that the drug is of insufficient dosage, particularly

in the case of antibiotics, and may produce resistant organisms as well as other untoward effects. Drugs acting on the circulatory and central nervous system and on the chemical balance of the body are also particularly dangerous in unskilled hands. Examples of all such drugs can be obtained from urban market traders, and occasionally from rural traders. Drugs purchased in the markets in Darfur are either labelled in French and come from Chad or are labelled and stamped 'Ministry of Health Stores, Khartoum'.

Despite the fact that the drug labels are in either French or English (the traders selling them speak only Arabic and Fūr, and may be able to read a little Arabic), only on one occasion during fieldwork was one drug wrongly named and its use misunderstood. This suggests that traders are very familiar with the drugs they sell and they act as prescribing and dispensing practitioners and administrators, on occasion.

For certain types of sickness there is a preference for therapy to be traditional and to be administered by practitioners of country medicine. Mental illnesses, ranging from fits in children to emotional disturbances and severe derangement, are preferably treated by a feqi or, occasionally an owner of roots. Individuals with mental symptoms have been unsuccessfully treated by modern medical practitioners who, frankly, have been unqualified to do so. Even in the provincial hospitals there is no psychiatrist or neurologist, and as a result, this field of medicine remains largely in the hands of the practitioner of country medicine - who is not entirely without success in his treatment of florid symptoms and is very successful with emotional disturbances, in particular.

When asked specifically about the type of treatment they would expect, informants who had indicated that they would seek treatment from a practitioner of modern medicine specified (in the majority of cases) they expected to be given injections, capsules or tablets. Others were less specific and spoke of 'the necessary medicines' or 'drugs'. A few urban men mentioned that they expected an 'examination and the relevant treatment'. Urban people showed a greater knowledge of individual medical drugs; this is understandable and consistent with their greater familiarity with modern medicine.

In seeking a practitioner of modern medicine, it seems that the majority of people are in fact following their desire for modern drug therapy, rather than any preference to consult a practitioner of modern medicine. This is where the role of the general practitioner is significant, for, by asking this practitioner to treat him (or her), the individual can be treated under the best possible conditions in his own view, i.e. at home, with modern drugs which are administered via the trusted needle. Moreover, the practitioner is likely to be a kinsman or, at least, another Fūr. The survey results do not show any men taking an injection from the general practitioner, but they certainly do make use of their skills, according to the practitioners themselves, and comments made during other interviews and observation.

According to their own estimation, the majority of rural people considered themselves either so incapacitated that they could not get up unaided during the worst part of their sickness, or able to carry on with their normal daily routine. Few people spoke of any intermediate degree of incapacity. From participant observation, one would tend to

agree with the rural people that they do, indeed, carry on with their normal routine. In the urban area a smaller proportion of people were unable to continue with daily routine and more people considered themselves to have suffered the less severe degrees of incapacity or to have been able to continue with daily life as normal. This could well be due to the fact that urban people are nowadays more able to obtain modern medical drugs to either cure or give symptomatic relief of their ailments, thus allowing them to pursue their usual activities. However, there is insufficient evidence to assess properly what appears to be a trend, i.e. that some, if not most, severely incapacitating health problems are being alleviated by the use of modern medical drugs.

Among the rural people interviewed are a number who did not seek treatment from a practitioner of modern medicine because they knew there were no drugs available at the time, and another small group complained that, when they had consulted the modern medical practitioner, he had had little or nothing to offer them in the form of drugs. Some of these sick individuals had been able to travel to the Zalingie District Hospital or to the Nyala Province Hospital for further consultation, others had relied upon traditional healers.

Rural people have a preference for being treated in their own homes when they are sick, and in the rural situation this is possible because practitioners of medicine are often kinfolk. However, if an individual is not severely incapacitated, and wishes to have modern medical drug therapy, he or she is encouraged to attend the dressing station or dispensary. Urban dwellers usually leave their houses to visit their chosen healer, whether traditional or modern. They are less likely to be

related to the healer, of course, and a healer with a practice is less likely to have time to visit the sick.

Urban people have become used to going to the hospital or dispensary to consult one of the medical assistants or a medical officer. Only on exceptional occasions would they expect such a practitioner to attend them at home. However, if an individual has to obtain a drug from the market because of lack of availability in the hospital, it is likely that a nurse will visit his or her house to administer the injection, privately. Alternatively, the sufferer might visit the home of the nurse to receive the injection.

Urbanization, then, would appear to encourage the sick to visit the practitioner of medicine while in the rural situation, kinship ties and a lower population density enable many people to receive treatment in the therapeutic milieu they prefer - their home - by both country and modern medical practitioners. This preference for remaining in the home, rather than actively seeking help outside, may perhaps account in part for delays in conveying seriously sick individuals to the dispensary or district hospital, even though there is a wish for treatment by modern medicine. There is also the hope that there will be some recovery. Whatever other reasons, the journey from a remote mountain village to the nearest dispensary or hospital is not easy for a sick person; walking may not be possible and a donkey may be used, or even a bed strapped on a camel's back. Within a reasonable distance of the hospital, if fuel is available, there is the possibility of using one of the hospital vehicles or a local government landrover as an ambulance, but this is not yet a common practice in Darfur.

The caring group of close kin and affines who look after the needs of the sick during the period of their illness tends to have a similar composition in rural and urban situations, although in the urban setting studied, it is noticeable that friends, neighbours and modern medical personnel are also included sometimes. (Occasionally, people were encountered who considered that it was only the modern medical personnel who 'looked after' them during an episode of sickness. They tended to overlook the fact that a caring group is inclusive of all those who take a part in the rehabilitation process.)

Those visiting the sick in the rural situation are predominantly kin and affines. This is simply due to the fact that (as in the case of the caring group), friends and neighbours are also kinfolk. The urban style of life, again, affects visiting and brings visitors to the sick who are unrelated but who have nevertheless, joined the group concerned with an individual's well-being.

The advent of modern medicine has caused a significant change in pattern of payment as far as the total system of medicine (country and modern) is concerned. Whereas payment was for country medicine, usually by bayad with a following donation in cash or kind when the sufferer has recovered (although some practitioners apparently demand a full payment before treatment begins - e.g. basīrs and eye practitioners), modern medicine is free. As the majority of urban therapy is obtained from modern medical practitioners, no payment is made. The rural picture is not too dissimilar as far as non-payment is concerned but might, on initial inspection, seem questionable as the patterns of healer choice

do show some basic differences between rural and urban healer choices. As informants told me, one normally pays a practitioner of country medicine (by whatever means), but when the healer is a close kinsman and the therapy given is of a minor nature, then payment may be overlooked.

Although the numbers are small, an analysis of traditional payments shows how, in the urban setting, it is not a custom to repay the practitioner of medicine with food or other gift (such as firewood or soap) alone, as is a feature among rural people (especially men). The more formalized payment by bayad, either alone or with further donation, is seen to become more usual in the urban setting, although it is also a feature of payment by rural women. This may be due to the fact that, as women, they do not share quite the same easy-going, fraternal relationships common to the society of men, and that links with older affines are slightly more formal than those with kin.

The settings relevant to modern medical healing (the hospitals, dispensaries, dressing stations and health centres) in Darfur have themselves been part of social change, by their very existence, since the times of the Condominium Government. However, within the last few years, additions have been made to existing buildings (such as the Zalingie district hospital) and a number of new units have been built - often by self-help schemes initiated by the local inhabitants and encouraged by the government. New buildings being put up today are usually constructed of sun-baked bricks with corrugated metal roofs rather than the small thatched cottages of earlier days.

A number of urban feqis have arranged their treatment centres in a way similar to those of urban practitioners of modern medicine with a

private practice. They have a room or rakūba within the homestead reserved for consultation, where the feqi sits, either alone or with an assistant. The feqi's assistant, in such an organized urban treatment centre, calls in the clients, assists those who cannot move easily and also helps the feqi to write miḥaya.

Rural feqis carry out their healing practices under less stylish conditions perhaps because they are farmers and are more or less fully occupied in cultivation. The closer relationships and less formality which exists between rural people (in comparison with urban dwellers) is demonstrated here, for the practitioner of medicine will call upon the sick individual as he is passing through the village, or make a detour on his usual journey to the fields to make sure his patient is improving.

Along with the more elaborate type of treatment centre of practitioners of country medicine in the urban areas, goes a more elaborate diagnostic and therapeutic technique; it will be remembered how one basīr regularly asked his client to visit the hospital to have an X-ray taken of their fracture, which he then studied before carrying out reduction. Other practitioners keep a small collection of bottles and boxes, in their treatment centre labelled (in English or French quite often) but often empty of drugs. These no doubt add to the 'flavour' of a healing establishment. One feqi employed 'magical glasses' (lenses), reputedly from Jebel Marra, to aid his diagnosis. Other practitioners admitted to adding drugs such as aspirin, and kaolin mixture to their miḥaya, in order to enhance its effectiveness.

In rural areas, little seems to have been added to their techniques by practitioners of country medicine except for the administration of modern medical drugs by injection. The administration of injections is a therapy which has flourished in remote areas where nurses, who would normally give injections privately, are few.

#### 8.8 MEDICINE AS A CATALYST IN SOCIAL CHANGE

For some time now, people have been aware that modern medicine can cure many diseases and can provide considerable relief in others. They are well aware that lives have been saved where previously families suffered great losses due to such epidemics as smallpox, cerebro-spinal meningitis, cholera and relapsing fever. They have also seen how pregnant women can be helped by careful pre-natal check-ups and how the trained midwife can deal effectively with labour, especially when it is not straightforward. Traumatic injuries have been treated in such a way that limbs are made useful again and not deformed by incompetent and incomplete immobilization. These factors and many others have encouraged people to try modern medicine and then to go on to build dispensaries and to encourage their sons and daughters to go to study in one branch of medicine or another - as doctors, nurses and midwives. Thus, modern medicine has acted as a catalyst to social change; it has shown people what can be done, what can be attempted and what can reasonably be expected of it. The people, too, have been willing to experiment and then to work to bring the institutions of modern medicine within the reach of their own homes.

The need and desire to have modern medical units within the reach of so many, in such a vast country as Sudan, has meant that the budget for medical services has been stretched, and suffers (with those of other ministries) in trying to cope with more than it is really able. The medical profession, having been given a broad and thorough training in medical school, would like to be able to practise with the type of equipment and drugs which are available in Khartoum which, they believe, produce the most satisfactory results. Medical officers and consultant physicians and surgeons are aware of and practised in using high technology and expensive drugs, many have studied in Europe and America, and they read the journals. The majority are not satisfied to then work in small, remote district hospitals, where drugs are minimal, the few instruments for surgery may need to be boiled over a charcoal fire and the 'disposable' gloves have to be sterilized again and again. As yet, Sudan in general and perhaps Darfur in particular, is some way away from having a well-equipped basic medical service. The network of primary health care units is certainly improving, but the main problem here is the lack of drugs and equipment - of even the most basic type, let alone high technology. The medical and nursing staff are thoroughly trained in their various schools, but they are often sent to work in units which are isolated and where inadequate supplies arrive infrequently. Under such conditions, the morale of the medical practitioners is, not surprisingly, low on occasion.

## 8.9 SUMMARY

Darfur, suffering from desertification and a still decreasing rainfall, difficulties of transportation and communication and migration of young men to cities and abroad, has witnessed a slow development of health and education services. This is the most remote of Sudan's regions and social change has been correspondingly gradual; by no means is the slowness of change a reflection of reluctance on the part of the Fūr people, or any Darfurians.

With the introduction of modern medicine in colonial times, the pattern of disease was changed and many fatal epidemic and endemic diseases were controlled or eradicated. With the increase of transportation (moderate though this is) within Darfur, have inevitably come road traffic accidents and severe traumatic injuries. Infant and child sicknesses have kept the death rate relatively high, but mothers are now being taught to cope with their sick children and are involved in all aspects of modern paediatric therapy.

There is a change in emphasis in beliefs about sickness cause. The citing of mystical agents, prevalent during the times of fatal epidemic, have given way to the more pragmatic ascertions that non-mystical factors of environment and the harsh conditions of subsistence life are causative of the majority of sickness.

The response to sickness nowadays generally, is an attempt to gain modern medical therapy. However, due quite often to a lack of drugs or the time to travel to obtain them, country medicine is still being utilized, particularly in rural areas. There is still a preference for

the rope-midwife in many areas, but the community health workers in the rural areas are very popular with the Fūr farmers as they are Fūr and often related by kinship or affinity. The insufficient supplies of the highly desired modern medical drugs has meant that those who can obtain them from outside the health system and are willing to administer them, will probably increase in number - a fact which is causing the modern medical professionals some anxiety.

The fact that modern medicine is free causes some unease among rural and some urban people; many prefer to consult a medical officer in his private practice. As traditionally minded people are aware, every gift demands a counter prestation - as Mauss (1954) has made clear, the gift is never free.

The Fūr have, in general, accommodated and assimilated modern medicine and, although certain elements have been rejected, others have been re-interpreted, according to their own beliefs, concepts and practices. This process is similar to that illustrated by Brokensha (1966), which took place in Larteh, Ghana. However, country medicine is still very much alive in Darfur, even though fewer practitioners are engaged in full-time (or part-time) therapy and prophylaxis. As Brokensha emphasizes, 'there is little ritual in social life' .... (and) 'this is perhaps a factor supporting the continuance of ritual at the shrines', (Brokensha, 1966:188). This could be said to be true of Fūr social life. The consultation of practitioners of country medicine (particularly fegis) filling the position of shrine rituals in Larteh.

The next chapter goes on to suggest how an anthropological study can be used in the planning and development of a technologically appropriate health care service in low income countries.

## Chapter 9

### ANTHROPOLOGICAL RESEARCH IN HEALTH SERVICE PLANNING

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## 9.1 INTRODUCTION

Perhaps it may be felt that this chapter might be placed in an appendix to the thesis. However, as an anthropologist working in the field of health, I feel an ethical responsibility that such research should relate closely to practical issues and should be utilized in the improvement of the quality of life of the informants, their families and the community at large. In fact some people asked me during fieldwork, 'will your work help us here?'. It should be possible to reply in the affirmative.

Social anthropological research in low-income, developing countries, such as Sudan, can assist in planning and development in most spheres, from agriculture and health to education and commodity distribution. Social anthropologists, by the very nature of their research methods (particularly that of participant observation) are well-equipped to study and interpret both aspects of a situation (that of the providers and of the recipients) where planning for development is to be undertaken. My own research in Darfur originally set out to study the whole system of medicine, both modern and country, available to the Fūr people; it was not designed to make a critical assessment of the Sudanese National Health Programme. However, while in Darfur I was somewhat surprised at the apparent lack of primary health care (which, I was assured, was a priority in the Region), although I was taken to the community health workers'<sup>1</sup> school,

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1. When speaking in English, the Sudanese health personnel tend to call primary health care workers, 'community health workers' and I have used this term throughout the thesis, however, the translation of the Arabic title, mu<sup>c</sup>awin sihi literally means 'health aid' or 'helper' - significant, perhaps, of the low level of esteem accorded such posts by the medical bureaucracy.

visited a number of primary health care units and accompanied two community health workers during several days work. The curative nature of modern medical services in Darfur was obvious, the preventive aspect was more difficult to pin down.

As a member of one of the professions supplementary to medicine I am used to talking to and working with members of the modern medical profession and other health professionals. Thus, it was easy for me to communicate with Sudanese nurses, medical assistants and medical officers, as well as officials in the Ministry of Health in the provincial capitals. From these discussions and my own observations, it would seem that a social anthropological research programme, especially designed to study the situation in Darfur (or any other place), would make it possible to plan health services to be much more relevant and available to the people whom they should serve.

Insight, such as that which I gained by just 'being there', could be sought more thoroughly and then usefully introduced into discussions concerning the whole system of medical services in the regions, where the members of the medical profession are reluctant, very often, to carry out their 'hardship' duties (without which service they know they cannot expect a post in Khartoum). Thus, with the viewpoints of both the recipients and the providers of health services in mind, I hope to indicate how an anthropological approach can set the scene and then go on to offer constructive advice in planning and developing health services in rural areas of low-income countries.

The National Health Programme 1977/78 - 1983/84, which sets out the Ministry of Health's decision to implement basic health facilities for all,

with the inauguration of a Primary Health Care Programme throughout the country, is one decision which has been subject to little (if any) research and planning at the community level. So far it seems to have failed.

## 9.2 THE NATIONAL HEALTH PROGRAMME 1977/78 - 1983/84

According to this document, preventive and social medicine are considered as top priority, rural health care services are to be strengthened to ensure basic health care for all, training facilities are to be provided for all levels of personnel within the health care service, the curative health care facilities are to be expanded and consolidated (in 'less developed areas') and medical research is to be directed towards health problems according to priorities, (NHP,<sup>1</sup> 1975:1-2). However, despite its claims to give precedence to preventive and social medicine, the major part of the, admittedly limited, health budget is not finding its way to community and rural health care.

In a report for Oxfam, Shepherd and Loizos (1982) summarize the evaluation of Sudan's Primary Health Care Programme by a WHO/UNICEF team in November 1981. The programme is criticized for not orienting the health personnel as a whole towards primary health care and for treating the programme as a special 'extra', tacked on to the existing health service. Data recording is absent and budgeting inadequate. The community health workers are not properly supervised and they tend to remain in their dressing stations or primary health care units operating a curative service,

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1. NHP - National Health Programme 1977/78-1983/84.

without touring their areas (with a population of 4000, probably several villages) to carry out preventive health care measures. Some of the people wanting curative measures, have by-passed the primary health care unit, as they have had to travel anyway, and have gone on to a larger establishment - a hospital or dispensary.<sup>1</sup>

The Primary Health Care approach has not been fully comprehended by the curatively oriented medical profession, some of whose members are hostile to primary health care workers, and the medical assistants who are supposed to supervise them are often of the 'old school' and do not have much training in nutrition, community health or health education. The teaching materials for primary health care are sparse and the students rely mainly on dictated notes.

The primary health care units must be adequately supplied with relevant drugs to ensure that they are of advantage to the people they are meant to serve. Only after this is achieved can the primary health care units be relied upon in the first instance and only then can disease prevention and health promotion be advanced.

Store-keeping at the Central Medical Stores in Khartoum and the regional stores is notoriously inefficient. (It will be remembered that drugs stamped 'Central Medical Stores, Khartoum', are to be found for sale in any small market in Jebel Marra.) The staff of the stores display a disturbing lack of knowledge about the requirements for storage of many

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1. The National Health Programme itself notes that despite an increase in the number of health care units in the period 1969-1974, the total attendances have remained the same, with a shift to hospitals (NHP 1975:26) - but they are still suggesting that 288 PHCUs and 77 dispensaries need to be built to cover the population, (ibid.:67). (PHCU - Primary Health Care Unit.)

drugs (many of which are destroyed by heat). The budding pharmaceutical industry in Sudan is not being encouraged by the government with regard to import duties on the raw materials.

At the time of their report (1981), seven years after the commitment to Primary Health Care, it appears that the Sudanese government had not requested WHO or UNICEF to assist them in the basic teaching of health professionals and members of the community regarding the need for primary health care. At the time of the Oxfam report (1982), it would seem that WHO were willing to support a programme utilizing the expertise available at the Educational Development Centres in the Faculties of Medicine in the Universities of Khartoum and Gezira and WHO/UNICEF would be able to help the small pharmaceutical industry through UNIDO.

The WHO/UNICEF report was fairly condemnatory of the implementation of the Primary Health Care Programme and the Oxfam report adds a few more comments and insights. The Primary Health Care programme has not emerged from 'a fundamental rethinking of health priorities', the concept of primary health care has not been explained to community leaders and the workers (who tend to be regarded as low grade curative personnel as their title 'health aid' or 'helper' makes clear) get involved in running their clinics and tend only to speak to the community (and then only to the men) after the Friday prayers in the mosque. They have little to do with other village practitioners, such as the rope-midwives, the modern medical midwives or sanitary officers. The report goes on to point out that the level of literacy expected (they are junior secondary school leavers) of the primary health care worker is too high and disqualifies many who might

be interested - individuals who might be more likely to remain in the village, rather than feel the pull of bigger salaries in the towns and the Oil States. Women, an almost untapped resource as far as primary health care workers are concerned, it is suggested, would probably be far more suitable than the young men who have been selected so far. Primary health care deals with the sphere of life in rural communities which concerns women - nutrition, mother and child health, water purification and domestic sanitation - and the use of women, perhaps from the age of 30-35 years, would circumvent any protestations that 'young women cannot go off on training courses' because women by this age are beginning to be more independent. Maybe they 'cannot examine men' (i.e. because men will not allow them to), but young male health workers cannot examine women, so that argument is spurious.

Perhaps the worst omission in the health field is that of child vaccination programmes in the rural areas, in which the international agencies would no doubt co-operate and which would also have a sympathetic hearing from non-governmental agencies.<sup>1</sup>

### 9.3 EXISTING MODERN MEDICAL FACILITIES AND USE MADE OF THEM - SOME PERSONAL OBSERVATIONS

In the more remote parts of Darfur, there are only dressing stations or primary health care units as they are now termed, because the villages tend to be small. Even these smaller units of the medical service are only

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1. The Oxfam Report on Sudan (1982) researched by Gill Shepherd and Peter Loizos, brings together many points which I had noted in Darfur but for which I did not have the background material to make informed criticism at the time.

busy for a few hours a day - in the mornings - and this depends upon the season too. During the busiest time of the farming year, in May and June, there are few patients but in the slack period, from the end of December until March/April, the numbers increase. After the morning clinic, the nurse or community health worker may go to visit the sick at home nearby and then on to the market to check the meat which is to be sold and to advise about the hygiene of the food section of the market. He may also have to travel to a sick person in another village. The midwife is always available to be called to a delivery, for which she may have to walk up to about 16 km. The amount of her work is very varied and irregular by its very nature.

In one dressing station, records showed that on an average, 37 treatment units were given per day in the first four months of 1980, (the slackest in the cultivator's year and an opportunity to visit a practitioner of medicine).<sup>1</sup> Each day an average of 15 new patients were recorded; some came once only, others 2-3 times a week. They were not given any drugs to take home.

Zalingie hospital was visited on average by some 180-200 individuals per day seeking medical treatment as out-patients, during the latter part of 1979 and during 1980, by my personal estimate. Again, numbers were lower during the busiest part of the farming year, (about 60-70 per day) at the beginning of the rains. Records of numbers attending the out-patient

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1. However, this was also the time when this community health worker began to work in this dressing station. Thus, the time of year and the fact of the new practitioner could have been responsible for higher numbers than at the time of my visit.

departments are kept by a clerk who counts those taking medicines from the pharmacy. This is not an accurate count of people attending, as some do not receive prescriptions for medicine.

At any one time there were some 30 in-patients in the hospital, sometimes as many as 35. In the year 5 September 1978 - 4 September 1979 a total of 90 operations were performed. (The only reliable record of numbers is the operating theatre book, kept by the doctors themselves.)

The provincial hospitals at el-Fasher and Nyala are both much busier than Zalingie hospital. These hospitals are, of course, much bigger than the one at Zalingie, and each is staffed by at least six consultants and ten to fifteen medical officers. From early morning until past mid-day, the out-patient departments of these hospitals are crowded and the wards are always full. These hospitals deal with the inhabitants of the towns and also with a large rural population from throughout the respective provinces. The rural people sometimes are referred by their own district medical officer, but more often they refer themselves, preferring to consult a doctor where they are more sure of being able to obtain the necessary medicines.

In Zalingie there is only the hospital pharmacy and the doctors' private clinic from which drugs may be obtained (apart from some drugs such as penicillin which can be found in the market place). In Nyala and el-Fasher there are several pharmacies and each is a hive of industry from early morning to early afternoon and again during the evening. Pharmacies tend to be places where men meet their friends, sitting down to chat and drink coffee inside or outside while they wait for their prescription, or just to chat. (Women meet in the perfume and fabric shops.) Many people

travel from afar to the pharmacy, on camel and donkey, to buy necessary drugs for themselves or their kinsmen and women.

The actual use made of the existing health care and medical services should be assessed by the modern medical practitioners on the spot, with more detailed statistical assessment by an epidemiologist.

#### 9.4 PRACTITIONERS OF MODERN MEDICINE IN DARFUR

The more formalized part of this research was specifically directed towards Fūr ideas and beliefs regarding sickness and healing and the steps they took to remedy their various ailments; it also examined the variety of practitioners of country medicine and their techniques of therapy and prophylaxis. Those aspects of modern medicine which are of interest to the Fūr - modern medical drug therapy, in particular - were investigated along with the practitioners with whom the Fūr tended to come into contact most frequently.

During my stay in Darfur, travelling to the main towns of the region, and also in Khartoum, I met a large number of practitioners of modern medicine - medical officers and specialist physicians and surgeons - and from informal discussions with these people, the following observations emerge.

With three faculties of medicine now in Sudan - in Khartoum, the Gezira and Juba - one might think that Sudan must be adequately coping with the staffing of hospitals throughout the country. However, this is not so, at least it is not so if one is a Sudanese practitioner of medicine working

in the curative field of medicine. The reasons for this state of affairs are threefold:- the 'brain-drain' to Saudi Arabia and the Gulf States, the preference for working in the capital and the fact that women, who account for about half the number of medical students, are not allowed or do not wish to work away from their families and do not fill the medical officer posts in district hospitals.

The great majority of Sudanese who are enticed to Saudi Arabia and the Gulf States have every intention of returning home at the end of a few years, having made enough money to establish themselves and build a house. Very few would consider emigrating. However, until people begin to return in numbers, probably several years hence, the problem of the modern medical system will remain. When they do return, it is unlikely that the more mature practitioners of modern medicine who have enjoyed the luxury of well-equipped hospitals abroad and who have probably acquired a post-graduate qualification as well, would want to take up general duties in a small hospital with insufficient drugs and fuel for electricity, in a remote market town hundreds of miles away from his professional colleagues, and earning a very low salary.

Sudan is faced with similar problems in many professions - engineering, agriculture, architecture, teaching, veterinary surgery and dentistry have all supplied individuals to work abroad - as well as among artisans and labourers. The government cannot afford high salaries to keep these people at home, nor can it produce or import the modern medical supplies which such professionals would require in order to carry out their work in a manner which would satisfy them.

Young medical officers posted to the provinces and thence on to district hospitals, where they are often in sole charge, are completely cut off from professional colleagues, friends and families by the lack of telephones and radios. They feel particularly beleaguered by the happenings of the new post and, probably for the first time in their lives are completely self-reliant. Thus, the term 'hardship' posting and all that this conjures up in the minds of the fairly newly qualified medical graduate (who has possibly worked for one or two years at most as a house officer in one of the hospitals in the capital, Wad Medani or Juba) is daunting to most individuals. They come to carry out surgical procedures under local or general anaesthesia, and to work with a theatre sister and nurse anaesthetist only. Until this time they have worked with a full theatre staff, under the eye of a surgeon and where there is the equipment for resuscitation and intensive nursing care. In the diagnosis of medical conditions, they have always had the back-up of physicians.

Medical officers in district hospitals are expected, as part of their work, to ensure that the smaller establishments of the health care system are also functioning and to supervise the other health care personnel in the district. Normally the medical officer becomes trapped inside the hospital, involved with clinics and surgery, practising the type of medicine (or as nearly as he can with the usually inadequate instruments and drug supply) which he practised while in his teaching hospital or other urban institution. Community medicine, nutrition and health education tend to be regarded as rather tedious extras tacked-on to the 'main',

'real' and 'proper' study of medicine. Without any particular impetus to utilize this part of their medical knowledge, medical officers bury themselves in that part of the medical field they know best and just hope that the year will pass without mishap and as quickly as possible. Then they can return to their families, hopefully settle down to a post in a city hospital, and look forward to a spell abroad for further studies and perhaps a few years in Saudi Arabia or the Gulf in order to prepare for the leaner years on a government salary. Sadly, it is not unknown for young medical officers sent to the districts to work on their own, to suffer such emotional problems that they have to be relieved of these duties and taken back to the province hospital or to the capital for treatment.

By the very nature of 'hardship postings', the young medical officers who are sent to district hospitals are complete strangers to the area. This is marked in Darfur because of the great distance from the capital, whereas many people have visited the Gezira area, towards Port Sudan, where there is a new highway, Kassala and some places in the North, along the River Nile. Kordofan is within easier reach of the centre as well. Unless school or university students travel to Darfur for geographical, archaeological or botanical research, or even for a short experimental medical study, then it is almost like a foreign country for the urban-born. Because of their 'foreign-ness', the medical officers tend to mix socially with a small number of other professionals in a similar position to themselves, such as civil court judges, local government officers, engineers, veterinary surgeons, agriculturalists. These then tend to

form an élite 'club', which may attract a few merchants (probably also from foreign parts) and teachers.

My observations, in general, indicate antagonism between the modern medical profession and practitioners of country medicine. From even a superficial glance, it is not surprising why this is so. The majority of medical officers, surgeons and physicians have been involved in the care of individuals whose treatment, by practitioners of country medicine, has gone badly wrong. They have had to amputate the arms of children which have been bandaged and splinted too tightly following fracture, impeding the circulation and resulting in gangrenous, useless limbs; they have had to operate on women to repair vaginal fistulae caused by packs of herbal materials inserted to cause abortion or to cure barrenness; they have been unable to treat the blindness caused by the country eye specialist operating on cataract and piercing the lens, which eventually (after some months to two years) results in complete blindness due to sympathetic ophthalmia.

Nevertheless, despite all the tragedies he had witnessed, one surgeon was still optimistic that it might be possible eventually to have some arrangement with certain country practitioners. He recounted one treatment for high blood pressure, which he found to be particularly successful for overweight (urban) men and was very positive towards much of the treatment of feqis. As far as the modern medical profession is concerned, they seem to consider feqis to be the most 'harmless' of all the country practitioners in their actual practices, although they may cause an individual to delay attending the hospital.

One other problem for modern medical professionals working in province and district hospitals is a perennial one, that of lack of supplies. Supplies never arrive on time, and when they do arrive they are insufficient for the period for which they are intended. Very often the fuel sent for oil lamps and for the small generators which light the hospitals will only last for about 20 days, using light for some three hours a night - and it becomes dark by 6.30-7.00 p.m. Thus, to eke it out means little more than 1½ hours per night, and this is 'hardly worthwhile' according to many people. Fuel for the hospital vehicles is never sufficient and is said to be the reason for not touring, very often, though break-down of vehicles is another reason, due to lack of spare parts. It would seem though, that a more securely locked store might also serve to correct this problem.

To finish this section, I must emphasize that these observations are gathered from many individuals, in many places and are not reflective of the dissatisfaction and discontent of one or two isolated medical officers in remote district hospitals. The medical practitioners with whom I discussed medicine generally, did not embark upon their problems for my benefit. The problems came to my notice throughout my time in Darfur and also in Khartoum. If I had sought to research into the problems associated with the implementation of a health programme, no doubt there would have been an even longer list. Nevertheless I believe many of these problems could be solved and a better health care service would result, with a widespread service to the entire population becoming a possibility.

## 9.5 ENVIRONMENTAL HEALTH

In Chapter 4 of this thesis, everyday life in two Fūr communities was portrayed. The living conditions, proximity of animals to human habitation, water supply, sanitation, diet and nutrition, the seasonal and daily activities of Fūr farmers and the various customs associated with major events of life were all depicted. A few points arising from the above will indicate where experts in various fields would be able to assess and advise on improvements in environmental health.

### Living conditions:

Living conditions are varied throughout Darfur, from the simple and barely adequate conditions of the remote mountain village to the more adequate, yet by no means comfortable conditions of a small rural market town. Basic living conditions are dependent upon houses, the proximity of animals to the homestead or to the houses, the water supply and sanitation.

From the point of view of health the Fūr are aware that both urban and rural houses have a number of drawbacks and these are recognized as being detrimental to health, as well as by those with a modern medical background. The houses do give adequate shelter, except in the cold winter nights and they are often overcrowded at such times. The stone, thatched cottages of Jebel Marra have no proper means of ventilation, except for cracks and crevices. The floors, apart from the cement floors of the more modern buildings, are ideal breeding places and shelter for insects however often they are swept. Thatched roofs provide sanctuary for small animals such as snakes, insects and scorpions. The traditional,

locally made wooden beds with hide webbing and the cotton mattresses of metal beds both afford shelter to blood-sucking insects. On top of this variety of animal life which may bite, sting, poison and transmit disease, there is always the danger of the thatched roof catching fire from stray sparks from the cooking fire.

The brick-built rooms found in urban areas do provide better shelter and give some security, but they are extremely hot in the summer months due to their metal roofs.

#### Proximity to animals:

With such close proximity to animals, there is always the risk of zoonotic diseases. Rabies is endemic in Sudan and is most commonly contracted via the dog.

The rural Fūr in particular are in daily close contact with carnivores, ungulates and birds, which they keep because of their economic potential and also as a source of food. They are also in contact with rodents and arthropods (many insects and scorpions) due to their way of life and style of housing. A great variety of diseases can be transmitted from these types of animals to man,<sup>1</sup> including diarrhoeal, neurological, dermatological diseases, fevers, respiratory infections, worm infestations and poxes. The electron microscope and new techniques of diagnosis have identified viruses in man and animal, and comparative

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1. Bisseru, (1967) Diseases of man acquired from his pets, deals with this topic and includes the majority of animals with which humans may come into contact in daily life, in most parts of the world (despite the title) see also, Hull (1955) Diseases transmitted from Animals to Man.

investigations in epidemiology and pathology have discovered previously unknown relationships between man and animals and their diseases, (Mayr, 1980:503).<sup>1</sup>

#### Water supply:

The water from wells and that piped to regulated outlets in the urban areas is regularly tested and would appear to be clean and quite safe for drinking. However, it is not an ideal situation when water has to be obtained via cans and hide water bags as it can become polluted in this process, especially if one of the water carriers were to develop a disease transmissible via water, such as cholera or dysentery. There is also a possibility of the water supply in wells becoming polluted, as they are not completely covered over. The possibilities of transmitting disease are increased in the dry season when more people seek water from the wells still functioning, when others have dried up.

#### Personal hygiene:

Many people gave 'lack of personal hygiene' as one of the possible causes of disease, especially those from the urban neighbourhood, which would indicate that they are aware of the need to maintain clean personal habits. However, in the rural areas, where money is not always available for extras, soap is often lacking in the households. Nevertheless, people are conscious of its uses.

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1. Suspension of the general, compulsory smallpox vaccination has led to the appearance of new zoonoses, (Mayr, ibid.).

### Kitchen hygiene:

Even without soap, Fūr housewives are very particular about the washing of their tea glasses and plates and other cooking utensils. They rub and rinse them many times, both after their use and again before they are used. When a choice must be made because of very limited finances, tea and sugar are much higher on the shopping list than soap.

### Sanitation:

In fairly dry tropical situations, the pit latrine is a good hygienic measure. However, it must be kept in a good state of repair, especially the materials forming the roof of the pit. Ideally the aperture should be closed but normally this is not done. After some years the pit can be filled in and another dug, should it begin to become unwholesome, but this may not be necessary if there is good drainage of the general area.

Pit latrines in urban areas are sometimes cemented over and these can be washed down with disinfectant. As long as the pit is dug deep enough and ventilation of the housing is maintained, the facility is acceptable.

The disposal of sewage by the night workers of the public health office does put them at risk with regard to infection, especially if there is an epidemic of a disease transmitted via sewage material.

Sewage disposal is one of the principle duties of the local government public health office. When many people come together to live in fairly close proximity, the risk of disease related to imperfectly disposed sewage is great.

The cleaning of the slaughter-house and general cleanliness of the town is also the responsibility of the public health office. Roads are kept clear to try to prevent the spread of fires, but also to promote hygienic conditions and the collection of refuse. When they have supplies, mosquito control is undertaken by the same office. However, none of these public facilities has yet reached the more remote villages of the Western District of Darfur.

#### 9.6 DIET AND NUTRITIONAL STATUS

Children, in general, in both rural and urban areas appear slight but not excessively thin or undernourished. Babies are breast-fed on demand up till about two years and this is supplemented with a little porridge after about six months. However, it seems that meat is rarely prepared for babies and during the time of fieldwork they were not given eggs because these were scarce due to an attack of Newcastle disease, which had more or less wiped out the chicken population in many parts. When the babies are able to drink from a small cup, they are given boiled and sweetened cow's milk. It is when the baby is still dependent upon breast milk and not able to take the full adult diet, between the ages of six months and two years, that a nutritional problem can arise. Occasionally, lentils are given to the weaning baby (a good source of vegetable protein) but little animal protein is given apart from milk. It would appear that this is a subsistence diet for babies. On such a diet, a child who does not become sick, will probably progress moderately well until the adult

diet can be taken. However, in Darfur there is a high infant mortality rate - 96.4 per thousand.<sup>1</sup> The three main killers of children, often in association with the weaning period, in low income, developing countries (of which Sudan is one) are childhood diarrhoeas, pneumonia and protein-calorie malnutrition, (Jelliffe, 1966:13.1). As far as I know, there had not been a survey in Darfur relating demography, nutrition and epidemiology<sup>2</sup> up until the time of fieldwork, and this would be needed in order to demonstrate the true picture, but it can only be pointed out here that it seems that the weaning period is a potentially dangerous one for infants due to their barely adequate diet. Children who become sick have little reserves to fight diarrhoeas and quickly become dehydrated. Without prompt rehydration, they die.

This picture would seem to suggest that it is only those who are the fittest who survive. Babies whose diet is just adequate and who manage to pass the weaning period without sickness, have the opportunity to progress to adult diet which, although somewhat unvaried in rural areas, does contain the essential, basic nutritional factors. This may then account partly for the relatively good physique of Fūr farmers. They are lean and muscular and both men and women are strong.

Among the Fūr, a well-rounded figure in a young woman is a sign of beauty, as among other African peoples. A few urban Fūr women, the wives of teachers, merchants, traders and office workers, and who were not farmers, were observed to be overweight - from the point of view of modern medicine.

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1. HTS 1977.

2. Personal communication with Dr Jon Hales. One of the few sources, Salah Abdel Rahman Ali Taha, (1977), states that 10% of admissions in Khartoum hospitals are protein-calorie malnutrition (PCM) and  $\frac{1}{3}$  of cases in Wad Medani are PCM. At Wad Medani, 53% of these admissions were under 18 months and 92% under 2 years. 85% were the children of tenants and agricultural labourers.

With multiple pregnancies, these women rarely loose weight. No women farmers of similar multiparity and age in rural areas were observed to be overweight.

All the foregoing aspects of life would be assessed by the various expert consultants involved in health service planning - modern medical practitioners, land and water resources experts, sanitation and public health specialists. The daily and seasonal routine, life-cycle events and the beliefs and practices associated with the medical system (i.e. those aspects of life which have been studied for this thesis) would be assessed by the social anthropologist.

#### 9.7 THE SOCIAL ANTHROPOLOGIST AND HEALTH SERVICE PLANNING

Ideally, a social anthropologist involved in health service planning should be a free-lance consultant, not circumscribed by administrative bureaucracy. The anthropologist's time should be spent in the field, hopefully living in the community and carrying out the conventional types of research - participant observation, interviewing key and lay informants and administering a survey questionnaire. After the period of field research, the anthropologist would then report back to the planning committee, making suggestions deriving from the results of fieldwork.

An anthropologist, having come to know a community or the people of a larger area, will be in a good position to depict the emic model - based upon the norms and values of the people themselves, while the health specialists and other consultants provide the etic observer's model. As

an outsider, the anthropologist clearly has no vested interest in the subject of the research and in its change or otherwise. The ability to portray the actors' views and ideas is a particular feature of social anthropological research and results from the special position of the anthropologist as a participant observer. When studying a people and their system of medicine, the local people are joined in the actor-role by the practitioners of modern medicine.<sup>1</sup>

Social anthropologists tend to avoid the epidemiological approach in research. When they do attempt it, their survey method is often inefficient, as Kroeger points out, (Kroeger, 1983:157). Conversely, he goes on to say, the epidemiological studies carried out by socio-medical researchers have frequently failed to take notice of the 'basic anthropological tools geared to establish cross-cultural contact and communication, as a pre-condition for avoiding severe interviewer biases', (*ibid.*). With this in mind, it would be better to have the epidemiological study carried out by others, possibly (and preferably) by the medical personnel on the spot.

With an emic model, it should be possible to determine what the people expect of a health service, in order to supply relevant facilities, rather than a service which might be thought of as 'ideal' by a committee of Ministry of Health, university and World Health Organization personnel who have perhaps not visited the area. If they have visited, it is likely

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1. It would be preferable for the anthropological observation of the modern medical system to take place before the modern medical practitioners carry out their part of the survey because such a survey is additional to their normal work.

that the visit would have been brief. Certainly it would not have entailed any participation in the life of the people. A plan built on the ideas of those who will eventually use the health service should result in a health care service which is technologically appropriate and which will result in the ultimate success of the programme.

The other consultants or team members would provide the etic model of the situation, assessing the current medical services, land and water resources, sanitation and housing and the requirements to bring rural areas to a basic standard deemed technologically appropriate to maintain health. After the various assessments of the present situation and future requirements, 'round table' discussions should be held, involving all expert specialists or types of specialist. During such discussions each specialist would become acquainted with the etic models held by all the other members. Thus, an all-round picture would be built up. From this basis, 'workshop' discussions might be introduced for the formulation of the various aspects of the programme (i.e. medical, land and water, sanitation, housing) with the policy makers. The anthropologist would represent the consumers (or recipients) of health care, depicting the present emic model and the hopes and aspirations of the people regarding the proposed health programme.

The health planners - consultants and policy makers - must, of course, be aware of the total subvention for the health programme before the programme is negotiated and organized, in order that the programme be tailored to the budget. This, hopefully, would avoid a suspension or non-completion at a later date due to lack of funds.

When decisions have been reached regarding the measures to be implemented, a pilot project should be set up. Perhaps a number of pilot projects would be feasible, in different areas. A region as big as Darfur has differing climatic conditions and geography to be taken into consideration, as well as the fact that the peoples of the region have a number of different patterns of existence. Thus, it might be more appropriate to have a pilot project in each of the types of situation - a mountain village, a lowland village and a mobile unit with one of the nomad groups - cattle or camel (or both). Such pilot projects would need regular assessment and should probably be in existence for up to five years for a true picture of their efficacy to emerge. Health education, which may need to change people's beliefs, practices and attitudes regarding health and medicine, will require time. Any practitioners of country medicine who are to be trained as primary health care workers will need a fairly extended period of training, as this will be mainly at the practical level and cannot be condensed as for literate individuals.

Following such a pilot programme, all specialists should re-assess their various fields and then the programme can be finally formulated. It must be understood by all concerned that such a programme for primary health care requires a long-term commitment and all levels of personnel involved, including the consumers, must be aware of time scale.

## 9.8 SOME SUGGESTIONS ARISING FROM THIS STUDY

This study has shown that the Fūr, and people in Darfur generally, are eager to have the opportunity to be treated with modern medical drug therapy and this includes the majority of country practitioners. Even those who said that they were keen to treat themselves, wanted their children to be treated by a practitioner of modern medicine, using modern medical drugs. The older generation were very positive in their appraisal of modern medicine because they could remember when the various epidemics which periodically swept through the area, killed many people. The study has also shown that form, colour and mode of administration are important in curative therapy; they will be equally important in preventive therapy. Beliefs, practices and preferences have been illuminated and they should be given attention as the programme of health education is prepared, in readiness for the inauguration of the primary health care service.

In a paper on relevance of country practices to primary health care, Young (1983) has sought to identify forms of country medicine which have potential for advancing primary health goals. He has found that indeed many techniques used by country practitioners can enhance the primary health care system by their curative and healing powers. He describes four ways in which country practitioners might be involved in primary health care - integration, complementarity, rivalry and intercalation. Integration might bring problems of resistance from modern medical practitioners; complementary works well as long as individuals are consulting simultaneously; rivalry could be said to be taking place in the case of the feqi succeeding where the psychiatrist fails; and

intercalation could be arranged for the plant materials when they have been tested and manufactured into measured dosages. (Young 1983).

From his experiences in training primary health care workers in rural Mexico, Werner (1981) looks ahead to the time when the health care worker is the key member of the health team and the medical officer is the auxiliary. The medical officer would be a specialist in advanced curative technology and 'on call' to the health worker for referrals and advice, when, as Werner puts it, 'the skills pyramid has been tipped on its side, so that the primary health worker takes the lead, and so that the doctor is on tap and not on top', (Werner, 1981:52)

Introduce suggestions

(i) Improvement of conditions for modern medical officers:

Before primary health care in Darfur can really get under way, with a clear start, it would seem wise to improve the conditions of the medical officers and to make changes in the medical syllabus to include more time devoted to the study of community related topics. Their conditions could be markedly improved if their numbers were doubled in each district, which might initially be hard to achieve. However, if they were given radios so that they could discuss difficult cases with colleagues and specialists in the province hospital, and also ask for supplies which could be brought by travelling merchants, the heavy responsibility of their work would immediately be reduced. The fact that they could communicate and get supplies when needed would make a 'hardship' post less arduous and daunting. After this had been achieved and further teaching about

primary health care introduced into medical schools, more young medical officers would probably be encouraged to consider the year in a district as something more worthwhile and more might feel they wanted to undertake the challenge. This would mean that two could manage a district, one remaining in the hospital and one touring. With good planning and well-trained mechanics, touring could be a worthwhile exercise, although relatively expensive, it is likely that an improvement in health over the years would compensate for this.

(ii) Health education:

Health education of all members of the modern medical profession must be undertaken before an attempt is made to educate the populace. Educational materials nowadays can make learning more interesting and teaching more satisfying. Perhaps health education should first be encouraged in schools and then the parents might be encouraged through their children, to attend groups for education and to discuss informally with the primary health care worker as he or she was encountered in the village or on the farm.

In order to make it possible for the entire population to receive a very basic level of health care, initially, a number of interested practitioners of country medicine might be approached to assist in the programme with health education of the general public. During the pilot projects, such ideas could be assessed. A sizeable proportion of country practitioners are very favourably disposed towards modern medicine. With their interest in and knowledge of healing techniques they should not be

alienated from the philosophy of primary health care but should be invited to join in the dissemination of general health knowledge among their kinfolk, after they have themselves received a basic training. Such members of a community are much less likely to leave their communities in search of better paid posts in urban areas and they will form a solid base from which primary health care can flourish.

(iii) The use of women as primary health care workers:

A feature of the present modern medical services in rural Darfur which caused me some thought was the absence of women as practitioners. In urban areas there are female nurses, midwives, health visitors and, very occasionally in the larger urban areas, medical officers. In the rural dispensaries and dressing stations there are midwives and the other practitioners are all male. As has been pointed out by Shepherd and Loizos (1982:48), much of the work of the primary health care worker concerns women and could well be carried out by women.

Although many of the obvious practitioners of country medicine are men - feqis, herbalists, bone-setters and general practitioners - women outnumber them, for almost every woman is a home therapist at some time or another. Some, of course, have developed their techniques more than others. Then there are the rope-midwives, spirit healers, diviners, a few herbalists and the one feqiya encountered. For some years now, almost illiterate women have been trained as modern medical midwives; most of whom were previously practising as rope-midwives. By training these women, two things have happened - some dangerous practises of

rope-midwifery have been replaced and keen, interested and loyal members have been added to the health service.

Women, up until very recently, have been generally non-literate. Even those who attended Qur'ān school for some time have not become well read. However, they seem to compensate by having very good memories - in fact their memories are trained from childhood to remember songs, stories and family histories, some of great length. The rope-midwives have proved that they can carry out their tasks, using sight and smell to identify their drugs. Admittedly, if women were to be trained to become practitioners of modern medicine, they would have to acquire basic literacy because of the number of drugs they would handle, but many of them could cope easily with this. Men who have collected techniques from others, general practitioners, would be suitable for training, too.

If women, or men, of a lower educational standard were encouraged to become their community's primary health care worker, it would almost certainly be found that they would remain in the post, satisfied with their role in the community and not tempted by the prospects of the capital or further afield. Thus, wastage of health care personnel would be cut dramatically.

(iv) The feqi as a partner in mental health care:

The skills of the feqi should not be lost by the modern medical system, for he is the country psychiatrist, taking care of many individuals whom modern psychiatrists have failed to treat successfully. Psychiatrists with whom I talked often spoke with great regard for feqis and the way in which they had helped sick individuals and their families or those who were emotionally disturbed.

(v) The herbalist's role in pharmacological research:

If herbalists were to agree, their plant remedies deserve study. Some studies are already in progress and medical compounds have been manufactured which are very much less expensive than the imported ones. However, the climate of the health service would need to change before herbalists could be encouraged not to fight the system and to feel that their remedies and their knowledge were respected by other professionals.

In a low-income developing country it seems vital that an already existing resource should not be lost. The practitioners have skills and techniques which have been trusted and helpful over centuries and many of these could be usefully harnessed for the benefit of the community, by diplomatic dealings and shrewed assessment on the part of the health planners. However, the 'diseases of development', as Hughes and Hunter name them (Hughes and Hunter, 1971:202), those diseases which are brought about as consequences of development must be kept in mind as the multi-disciplinary team of health planners sets about its task.

#### 9.9 CONCLUSIONS: OUTLINE OF A RESEARCH PROJECT

The following outline of a research project designed to bring primary health care to the entire population, will indicate the role of the social anthropologist in the planning and development of health services.

1. Medical assessment of existing situation, using epidemiological and statistical surveys with subsequent recommendations.
2. Land and water resources, and environmental health assessment and recommendations.
3. Field research by social anthropologist, recording the assessment made by the people themselves of their situation and current needs. The anthropologist would depict the emic model of the way of life, beliefs and practices of the people.
4. Discussions - 'round table' and 'workshops' - involving all specialists, the anthropologist (representing the proposed recipients of primary health care) and the policy makers in the formulation of the programme.
5. Pilot projects.
6. Assessment after five years, with regularly spaced mini-assessments (every three or six months, depending on progress), further suggestions and recommendations when necessary.
7. Formulation of programme and subsequent implementation.

## Chapter 10

### CONCLUSION

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## 10.1 INTRODUCTION

The main aims of this study of the system of medicine encountered among the Fūr people of the most western region of Sudan have been to portray the system of medicine in a Muslim society and to study social change since the advent of modern medicine in the area. A subsidiary aim has been to indicate where a research programme of this kind could be of value in the development of health services. To accomplish these aims a general historical and ethnographic account has been given, which indicates the effects of Islamization on the original divine kingship and on Fūr social life today. The Fūr are subsistence hoe agriculturalists and their lives are bound up with the land and its produce - mainly millet - which forms their staple diet. A study of the field of sickness and healing forms the other main theme of the thesis, in which the classification of sickness, the beliefs and practices of ordinary Fūr men and women, as well as of the practitioners of medicine, have been examined. Sickness classification has been considered with regard to choice of therapy and practitioner. A survey questionnaire was administered in two communities - a remote mountain village and a neighbourhood of a small town - and the medical beliefs and practices in the two situations have been compared and contrasted.

## 10.2 SUMMARY OF CHAPTERS

The thesis is divided into three parts: Part I comprizes the introduction and chapters two to four and is historical and ethnographic, Part II comprizes chapters five to seven and is concerned with the system of medicine among the Fūr, and Part III, comprizing chapters eight and nine and the conclusion, is concerned with social change and the part which anthropological research can play in the planning and development of health services.

Following the introductory chapter, in which the aims of the study, the research setting and methodology were described, chapter two traced the outline of Fūr history, from the traditional early fragmented data to the conversion to Islam and the Muslim sultanate and then to the incorporation of Darfur into the Democratic Republic of Sudan. The teacher-practitioners of medicine, the feqis, have probably been the most profoundly influential group throughout Darfur and their dual role has been considered, along with pilgrimage, trade, labour migration and education. All have wrought change in Darfur, some has been enlightening to the Fūr people, but not all. Along with new ideas and practices has come new forms of sickness in the form of fatal epidemic diseases.

Chapters three and four were generally ethnographic. Chapter three gave a geographical and environmental background and described the social organization of Fūr life, from local government to remote villages, from food production and markets to kinship, from the impersonal to personal. Chapter four depicted everyday life in two Fūr communities - an urban neighbourhood and a remote mountain village. The Fūr are agriculturists.

Their land, its produce and their Islamic faith are the raison d'être for their lives. These are the topics which dominate Fūr conversation.

Chapter five began the study of the Fūr system of medicine with an appraisal of sickness and the beliefs regarding its cause. The effects of urban living and education on these beliefs were assessed. Men seem to have been most affected in their beliefs by these phenomena, but it was the women who actually demonstrated their familiarity with modern medical practice. It was found that causation of sickness could be most effectively studied by the use of a model having three levels of cause - ultimate (the Deity), intermediate (mystical factors) and immediate (natural factors) - and two major categories in each level - of extrinsic and intrinsic factors. The majority of sicknesses were found to occur at the immediate, natural level and were of both extrinsic and intrinsic categories (i.e. beyond and within human power of control; respectively). This is, it is argued, an indication of Fūr pragmatism - they live close to nature, they depend upon it for their livelihood and it is in nature that they seek many of the answers to their problems.

Chapter six portrays the way in which the Fūr conduct episodes of sickness and demonstrated their preference for modern medical drug therapy, both in theory and practice. They were not quite so enthusiastic about modern medical practitioners, however, preferring their own kinfolk, or at least a Fūr to ministrates to them. Urban people demonstrated that they are more inclined to the modern medical system than are the rural people, who continue to explore all the available resources.

Chapter seven was devoted to all the types of practitioner of medicine encountered in Darfur during field research. There is an extensive network of country practitioners, in part-time and full-time occupation as practitioners of medicine. They are generalists and specialists in many branches of the field. Biographical sketches of each type of practitioner precedes an account of the varied techniques of each and where possible, some indication was given of the significance of each therapeutic and prophylactic technique.

Chapter eight was concerned to demonstrate social change with regard to the medical system. Change has occurred wherever modern medical thought and practice has come into contact with country medicine. The pattern of disease has been changed in Darfur with the advent of modern medical drugs. There has been a change in emphasis regarding beliefs about sickness cause, and the people are eager to partake of modern medical drug therapy when they or their children are sick. The two communities studied have been subject to varying amounts of pressures for change and this is apparent in their beliefs about sickness cause and their awareness of modern medicine.

Chapter nine attempted to show how social anthropological research could benefit health service planning and development, with the aim of providing relevant medical and health care, in line with what the people themselves desire. Without these basic factors, success would seem to be unlikely.

Chapter ten concludes the thesis.

### 10.3 CONCLUSIONS

The agricultural way of life has shaped the Fūr world. They are people who live by the seasons and who talk constantly of the land and its produce. The mountain landscape of Jebel Marra shows clearly the imprint of man; the terraced mountain sides, where rain-watered dukhn and dhurra are grown, are thought to have been engineered many hundreds of years ago. The same terraces, where the divine kings annually sowed the first seeds, are still being cultivated today.

Over the last three hundred and fifty years, Islam has been making its own very definite impression upon Fūr life. Both public and private family life have been changed, to some degree, as a result of conversion to Islam. The change does not appear to have been a violent one, however, and has occurred by gradual assimilation and accommodation of Fūr and Islamic traditions and beliefs, until a faith and way of life that is characteristically Fūr, has emerged.

During the twentieth century yet another influence has been felt in Darfur, that of 'modernization'. As in the case of Islamization, though, modernization has come gradually to Darfur, partly at least because of the great distances between the region, on the one hand, and the capital and the Gezira on the other. As has already been mentioned, Darfur was made a 'closed district' during the days of the Condominium government, with the intention of restricting new ideas and news in general about the rest of Sudan, although people were free to leave the region in search of work in the Gezira. These returning workers were probably the original agents of change, bringing with them not only news of innovative farming

techniques, but also of education, health services and business dealings. Different aspects of Islam would also have become apparent to those whose learning had taken place around the early morning and evening fires of their fegi-teachers. In the Gezira towns and villages, as well as in Khartoum, there were Qur'an schools run by men of some academic Islamic learning. In their Friday prayers, too, the migrants would have listened to the great Muslim preachers and teachers of the time, whose views on the interpretation of doctrine would have been somewhat different from that of the parochial farmer-fegis of Darfur.

Returning migrant workers very quickly disseminated to the mass of the population in Darfur, the news that it was possible to improve their farming, to educate their children and to treat the majority of diseases which regularly threatened the population.

In attempting to portray an aspect of Fūr life which has by this time been influenced for some fifty years by modern beliefs and practices, I have felt it necessary to outline the historical and environmental factors in which traditional ideas flourished. Such a background may assist in illuminating the significance of certain elements of the medical system as it is seen to exist and operate today.

The Sultanate of Darfur was, by all accounts, previously a divine kingdom and, even after the monarchs became Muslim sultans, many of the traditions related to divine kingship remained. Perhaps because of the gradual process of Islamization, there do not appear to have been many conflicts with traditional ritual experts when the sultans invited Muslim holy men to start teaching the Fūr the new religion in the seventeenth

century. This may be due to the fact that these teachers were themselves participators in a way of life strongly associated with mystical powers. Since the early centuries of Islam, traders have been passing through Darfur, connecting it with the Hejaz, via the Nile valley and Red Sea ports, with Egypt, the Maghreb and with Kanem-Bornu. Thus, the Fūr must have been fairly well acquainted with the observable aspects of Islam and would also have been aware of the mystical powers associated with any religious teachers or holy men accompanying the caravans of traders. As Lewis has pointed out when referring to teachers and holy men as agents of Islamization:

'their contemporary image in the popular mind as custodians of Muslim charisma, through their access to the mystically charged symbols of Islam, particularly the Quran, and their ritual functions widely applied to healing the sick and preventing or assuaging misfortune, as well as soothsaying, by means of Quranic charms, talismans, and prophylactics, indicates without doubt one range of their activities which has made a singular impression, and attracted followers.'

(Lewis, 1966:29)

Once Islam had gained the sympathetic ear of the sultan, and the holy men and teachers had been invited to instruct their (inferably) very willing students, Islam in Darfur assumed the 'self-perpetuating character', mentioned by Lewis, (*ibid.* 28); the invited teachers each produced their own disciples to follow in their footsteps as teachers and to recruit the locals as students. There are still a number of families in Darfur who are descended from these first teachers and holy men, who are acknowledged as being possessors of the baraka handed down to them from the early days of Islam. The progenitor of the family was usually an Arab feqi, who then married into a Fūr family, with subsequent

marriages within the extended family, thus, the Fūr themselves became the agents of Islamization.

The characteristic of Islam among the Fūr is its simplicity and straight-forwardness; it does not have a developed cult of saints or of shrine visiting as in other parts of northern Sudan, nor does it have the spirit possession cults found in Muslim West African society. The Tijaniyya tariqa, an ascetic brotherhood, is found throughout Darfur, its unobtrusive ritual conforming to the preferences of the modest Fūr people. Despite their contacts with peoples of other parts of the Muslim world, the Fūr seem not to have been affected by the more dramaturgical features of Islam. They do have beliefs in the evil eye, in the effectiveness of sorcery, in evil spirits and in jinns but such beliefs are not pre-eminent and are usually kept in reserve for the time when the occasion demands.

The remarkable lack of importance accorded the malevolent mystical features of Islam among the Fūr would seem to be outweighed by the preponderance of prophylactic paraphernalia which each individual secretes about his or her person, dwelling or beast of burden. Children, from the day they are born, are protected with hejabs, blue beads and other small leather-covered talismans, containing camphor and other aromatic substances. Adults frequently visit feqis for miḥaya, when they are in good health. Thus, it would seem that the mystical aspect of life among the Fūr is represented mainly by prophylactic elements, which then are presumed to act as safeguard without very much more attention. A predominant belief in mystical causation requires a certain amount of

time to be devoted to the divination of the cause and its remedy, even in cases of fairly trivial misfortune. Only in instances of mental disturbance and long-standing sickness are people, who are constantly absorbed in their land and crops, provoked into consideration of mystical causation.

Lewis says of the Somali, 'illness is very rarely ascribed to magical causes', even though 'magico-religious procedures' are used in therapy, (Lewis, 1963:259). Nor is sickness regularly thought of as being due to the wrath of God. 'Neither divine retribution nor sorcery provides a regular idiom of immediate causation, and witchcraft exists only in a few specific contexts,' (ibid.).

The first hypothesis, stated that among the Fūr, concepts of sickness have their basis in religion and are closely involved with personal social relations, the restoration of which (following impairment or dysfunction) is in the province of the practitioner of medicine. This has been found to be generally, though not completely, untenable and the position to be nearer to that set forth by Lewis. However, when the Fūr do use concepts of causation other than those associated with natural factors, they do have their basis in religion, but they are rarely 'closely involved' with social relationships between individuals. Belief in the evil eye as cause does not necessarily involve seeking out the owner of 'the eye', and any powerful feqi may be requested to negate the supposed machinations of another.

Barth, in his study of the Basseri nomads of South Persia (1964), found the lack of ritual among them so disquieting that he went to some

lengths to acquit himself of indifference to the peoples' beliefs and practices, by adding an appendix on ritual life. Douglas (1978) offers another approach in the analysis of societies which seem to their students to have little in the way of ritual and symbolism. Rather than suggesting a meaning which is implicit, which Barth has done for the annual migrations of the Basseri, (Barth, 1964:148-153) and which Douglas suggests is a weak argument, one could better 'suppose that a society which does not need to make explicit its representation of itself to itself is a special type of society', (Douglas, 1978:38).

Douglas makes three points in her chapter 'Away from Ritual'. Firstly, that 'secularization', far from being a modern, urban trend, is in fact 'an age-old cosmological type, a product of a definable social experience, which need have nothing to do with urban life or modern science'; secondly, that magic may well be less important in some communities; and thirdly, that the interest in magic 'varies with the strength of the social ties', (*ibid.* 36). All three points would seem to be of value in the analysis of beliefs and practices in the field of sickness and healing among the Fūr. The last point needs further elaboration and will, I believe, clarify why Fūr society 'is a special type of society', as Douglas suggests.

Conversion to Islam of societies whose previous religious beliefs have included ancestor veneration, a pantheon of lesser spirits and a variety of mystical activities, has meant adjusting and adapting those aspects of beliefs to fit the Islamic eschatology. In Islam these beliefs are accommodated by three corresponding categories: angels, saints and

jinns; jinns and devils (shaytāns); and the evil eye, sorcery, hejabs, mihaya, ʿazīma. The supreme deity finds new identity in Allah.

From historical accounts, it would appear that religious beliefs in Darfur involved Molu (God) who lived in the sky and who created Man; it is Molu to whom the stone spirit houses on Jebel Marra were dedicated, (Felkin, 1885). Felkin also mentions a great spirit who lived on Jebel Marra with an enormous army of spirit servants; he himself does not connect Molu with this spirit. Balfour-Paul (1955) mentions sacred trees and rocks and the spirits of sacred snakes associated with them. Mystical activities included mediation by certain individuals with the spirits, divination and fortune-telling according to Felkin. These features would all be suitably accommodated by Islam in the categories outlined above.

From questions asked of informants both during the two surveys, and during individual interviews, it is obvious that the Fūr have in their repertoire of explanations for misfortunes in general (and sickness in particular), a number of ideas concerning possible mystical causative factors, including the evil eye, the acceptable form of witchcraft in Islam, but they usually choose not to call upon them.

As far as social ties are concerned, it will be remembered that the Fūr do not tend to have long-established villages and that villages may disband due to the need to find new land and fresh water supplies. There are cases of whole villages moving together, of sections separating to start new, independent villages or to join other established villages. A man or a group of brothers may start a new village, which will soon be

expanded by the marriage of daughters, who normally live matrilocally, at least for a year and often permanently. There is usually much coming and going between villages, visiting on market days and self-help work parties in the farming season, as well as 'just visiting' on a friendly or kinship basis. Children also participate in visiting their young kinsmen in nearby villages and when the boys become muḥajarīn, their friendships in distant villages are greatly increased in number. These features would seem to point to the fact that ties of kinship are particularly strong in Fūr society, while it would seem that the political sphere of rights and obligations is not particularly well demarcated. On marriage there are some obligations on the part of the bridegroom to give presents to certain of the bride's relatives and to avoid his mother-in-law and father-in-law. Since the Fūr have lost their leader, in the person of the sultan, the whole political structure of the monarchy has virtually disappeared and authority has been imposed from outside and above by the national government and is distant from rural villages in Darfur. Personal disputes, land and housing sites and, occasionally, marriage decisions are presided over by village elders, though they show no real exercise of authority. One of these elders is usually the shaykh of the village or group of villages, who collects the government taxes, the only person with any, albeit very limited, authority around.

Thus, it can be seen that social ties among the Fūr, while they are strong in one sense - interpersonally - where peoples' emotions are concerned, they are weak politically, where rights and obligations are concerned and in the more formal side of life. Rights and obligations

towards authority are weak, especially since the end of the sultanate, and with it the disappearance of the ritual activity that was connected with the person of the sultan.

Here, then, is a society where the people are agriculturalists, living in fairly small villages in quite close proximity to their many kinfolk, where the use of witchcraft accusations is extremely rare if not totally lacking. Although the belief in the possibility of witchcraft as a cause of misfortune (particularly in cases of sickness) is present, it is not generally thought that witchcraft is generated in the form of personal malevolence but simply that it is there, in the form of the evil eye, which is 'everywhere' (as I was assured on many occasions by elderly women). Thus, it would seem that here is the evidence for thinking that the Fūr society is 'special' in the way that the Basseri nomads seem to be special to Mary Douglas.

Fūr society may have arrived at its present character as a result of the major blow inflicted upon it in the form of the loss of the sultan. Under the rule of the autocratic monarchs, in a tightly-run state, with dues payable to the sultan's kin and favourites, the people may have lived under a good deal more pressure than they do today; things mystical (or magical) may have been more important to them and Felkin's report suggests that it was. If so, their mystical beliefs and practices would have been translated to the corresponding Islamic category on conversion. However, this is purely conjectural, but it would allow for the present day situation where the beliefs are preserved though they are seldom articulated or utilized in the normal run of events.

As an Islamic society, the Fūr do appear to be somewhat secular in outlook when compared with some other Muslim peoples, especially in the field of sickness and healing, where mystical causation is not strongly suggested although mystical prophylaxis and therapy are very prominent. The original teachers and holy men encouraged to come to Darfur were the feqis, who combined the art of healing with their other religious and teaching roles. The coming of the feqis would have added a new dimension to whatever therapies the Fūr already employed. However, as has already been pointed out, religious brotherhoods were not a feature of Islam in Darfur until the nineteenth century, when the Tijaniyya tariqa was introduced to Sudan and subsequently to Darfur. As a quiet order, its members do not venture into dramatic ecstatic dhikr and this has probably been a deciding factor in the absence of treatment by ecstatic states, as seen among some Muslim groups, such as the Hamadsha in Morocco. Spirit possession states are not a significant feature of Darfur Islam, though a few individuals have introduced them recently into urban areas. Spirit possession cults in Islam, it will be remembered have taken the form of the zar spirit possession cult in Sudan, Egypt and Ethiopia, which Lewis (1971) has analysed as being peripheral cults, attractive to those whose full participation in the rituals of orthodox Islam is prohibited. In West Africa, spirit possession took over the role of ancestor cults. The Fūr, apparently, had no ancestor cults and women lead a life which is fairly free of prohibitions, hardly subject to segregation; it is they who carry out at least half of the farming activities of the community, and thus produce a major proportion of its food.

The apparent secularity of the Fūr is, I suggest, dependent upon the factors mentioned above. The necessity of defining it in this rather negative way is due to the fact that a number of other studies of Islamic societies which have been described have emphasized the very features which are lacking or poorly represented in Fūr Islam.

Having found that accounts of the conceptualization of the cause of sickness in many communities tend to differ from the present study of the Fūr, one has to consider why this should be. There are a number of possibilities.

(i) Perhaps Islam itself is a world view which leads to a pragmatic rather than a mystical explanation of life's adversities. This can be said to be true of the straightforward, simple faith practised by Muslims who deprecate unorthodox practices such as saint or shrine visiting, ecstatic spirit possession ceremonial and the use of or belief in magic, witchcraft, sorcery and augury. The Fūr, generally, are such Muslims.

(ii) As was noted in Chapter two, although Darfur was at the cross-roads of the traditional routes across Africa, the above-mentioned unorthodox Islamic practices found in North and West Africa and the Middle East are not found. Either, they did not find their way to Darfur or did not cohere with the existing beliefs and practices. This could indicate a certain stability of world view and social temperament. However, we do not know enough about the ancient traditions of the Fūr to make anything but speculative guesses, but nevertheless, they may have been pragmatic of old.

(iii) Social change in the land of the Fūr is perhaps more appropriately conceptualized as being of 'modernization' rather than of urbanization or industrialization of an agricultural way of life. The Fūr have, with expert advice, modernized their farming techniques and animal husbandry and have co-operated in re-afforestation projects. They have built schools and dispensaries and are eager to have their children educated and the health of their families maintained. In general, it can be said that the Fūr are keen to improve their present situation rather than change to another. With an increase in education and possibilities to travel, individuals have studied at western oriented universities, have travelled abroad as students and then returned home to Darfur (for short vacations at least). Their experiences outside the community will have been disseminated among their kinfolk and other members of the community in their own village, neighbourhood and area. Also, there are those (non-Fūr usually) in the modern medical profession, veterinary service and ministry departments of forestry and agriculture, who are working in the rural areas and mixing to a certain extent with the local inhabitants. These individuals are a constant source of dissemination of modern thought, ideas and technology. Such thought, ideas and technology are scientific, profane and secular (in the Durkeimian sense) and they are obviously acceptable to the Fūr.

(iv) The various conditions peculiar to women and pregnancy problems are not considered to be sicknesses, as such, by the Fūr until they reach the stage of severity which prevents a woman being fully active in the normal routine of Fūr life. 'Every woman has such (gynaecological and pregnancy) problems', they say, until it becomes evident that 'this time

it is different'. Thus, conditions which may be more immediately regarded as sicknesses among other peoples, which are perceived to be due to factors of the mystical level of causation, tend not to feature frequently as sickness. Accordingly, those factors of cause associated with such conditions (the evil eye, sorcery and evil spirits) also are absent. Along with this lack of mystical level causation in women's sickness there is also the fact that men tend to suffer traumatic injuries, not infrequently, and these are nearly always regarded simply as the direct outcome of the physical causal agent (the horn of an ox, a fall from a horse or a wound obtained while cutting wood).

In his search for an idea around which information concerned with a medical system could be organized, Glick has suggested the use of 'power'. Diagnosis, then, concerns ideas about the source of power believed to be causative of sickness and treatment is designed to overcome it and restore the balance between the individual and the antagonistic power, (Glick, 1967:32-34). The ultimate source of the antagonistic power, in this case, must be regarded as the Deity but there are different levels at which the power operates. These levels, it is suggested, are 'immediate' and 'intermediate' below the level of the Deity. The levels of operation of the antagonistic power would seem to depend upon the gravity of the problem - at the immediate level a natural, knowingly experienced event or circumstance results in sickness or injury; at the intermediate level, a mystical, retrospectively assumed event or circumstance causes sickness or injury; at the ultimate level, if other levels prove not to have offered an explanation of the sickness, it must be due to the will of God

and Man accepts this. The intermediate level of causation would seem to be the level of retribution, where God may actively and intentionally punish an individual who has transgressed. The ultimate level of causality relates to the omnipotent Creator; there is nothing personalized here. The intermediate level concerns personalized antagonism towards the individual by the mystical order of the cosmos. The immediate level concerns many matters which we might regard as chance happenings. However, nothing occurs 'by chance' in Islam, and such natural events are all perceived as a part of the fate of Man, as his 'portion' (qisma).

Data collected in Darfur suggest that the Fūr conceptualize and define sickness as an impairment in the ability of the individual to fulfil normal routine activities, as a result of one or more symptoms, or group of symptoms, which cause disease. These symptoms are all regarded as being ultimately due to God and are not questioned further at this level. However, most people perceive of other, immediate and also intermediate causes of sickness. The immediate causes having to do with the environment and the hardships of subsistence life, while the intermediate causes concern factors which we would conceive of as mystical - either in the form of anthropomorphic beings, the Deity or the social and ritual state of the human being.

Causal factors of the latter level of causation, apart from God or the will of God, are generally referred to infrequently by the Fūr. No conclusive information was elicited as to whether the response concerning God referred to direct and positive intervention of the Deity at the intermediate level, or if the intermediate and ultimate levels were identical at this point.

Although they rarely mentioned mystical agents such as the evil eye, jinns, shaytāns and sorcery as causes of sickness, either in the hypothetical case or in the instance of personally experienced sickness, when questioned directly about these entities, the majority of people agreed that they could cause sickness. Fewer people believed that they actually had been causative in their own case. Some feqis denied the existence of the evil eye and that jinns and shaytāns might cause sickness. For the majority, however, the evil eye is an ever-present force among a community or a group of individuals, and spirit beings are believed to lurk nearby. Such is the 'normal' state of affairs. This relates to Evans-Pritchard's point that Azande do not conceive of the distinction between natural and supernatural (or mystical) as we understand them, i.e. as being normal and abnormal, respectively, (Evans-Pritchard, 1937:81).

Evans-Pritchard has stressed that his use of the terms 'natural' or 'common sense' and 'mystical' or 'supernatural' is as we understand them and that facts and happenings in Zande society which we would term abnormal or supernatural are considered normal and natural, (ibid.). The presence of the evil eye and the jinns and shaytāns, would seem to come into this category and, thus, should then be considered, similarly, as the normal from the Fūr point of view.

Although these mystical entities are, like environmental factors, beyond the control of human beings, their presence is only confirmed by the occurrence of sickness (or some other misfortune) in retrospect. This retrospective aspect in the determination of causation is significant. Environmental factors such as climatic conditions, insects and traumatic

events, are generally consciously perceived by one of the five body senses and are rooted in everyday experience. Mystical factors are not perceived in this way by most people (though there are people who claim to have seen jinns), they are based on postulated evidence. Sickness, apart from that recognized as some form of emotional or mental disturbance, which is perceived as being due to the intervention of mystical agents, is likely to have troubled the sufferer for some time or to be unexplained by other causative factors.

Such factors as have just been described, are recognized by the Fūr as being beyond the power of human beings to control. They also recognize those of which there is a possibility (though for them little probability) to control, such as the factors of subsistence life which increase human susceptibility. Again, these factors are consciously perceived. However, there are also factors which are within human ability to control but which are inferred, and like mystical agents their presence is based upon supposition and they are not perceived by the body senses. These are the factors of social and ritual conduct which determine the mystical state of the individual. Although very few individuals in the survey mentioned these factors of social and ritual conduct, either in the hypothetical case or in the case of personal experience, a number of feqis were quite adamant that sickness could follow as a result of improper social or ritual conduct. As in the case of mystical agents, such sicknesses perceived as being caused by social and ritual conduct, tend to be placed in this group post hoc.

In his essay 'African thought and Western science' (1974) Horton has suggested that the relations between common sense and theory in African and Western societies are essentially the same and that 'common sense is the handier and more economical tool for coping with a wide range of circumstances in everyday life'. However, on occasion 'a wider causal vision' than that provided by common sense, is required; it is 'in these circumstances' that 'there is a jump to theoretical thinking', (Horton, 1974:142). Such an argument would seem to be well illustrated by the material collected among the Fūr, concerning beliefs about causation of sickness. When they find that natural causative explanations do not provide satisfactory interpretation of a particular episode of sickness, they 'jump' to their body of theoretical knowledge for explanation regarding causation. Here, the explanation is expressed in the mystical idiom. As Horton goes on to point out, theoretical notions are usually expressed in 'phenomena strongly associated in the mind of the observer with order and regularity', (*ibid.* 146). As Muslims, the Fūr are very familiar with the mystical phenomena of Islam, due to their mention in the Qur'an. Mystical phenomena are part of the Islamic doctrine and are in no way alien to an ordered and regular life.

Horton goes on to suggest that another key concept in understanding other belief systems, is the concept of 'closed' and 'open' predicaments. In the scientifically orientated 'open' system of thought there is an awareness of 'alternatives to the established body of theoretical tenets', while in African traditional thought this is absent, (*ibid.* 153). It would seem that the Fūr, in becoming aware of alternative theories of causation - such as those of modern medicine - and using them to explain

episodes of sickness, are nearer to the 'open' predicament suggested by Horton and have probably been influenced in this by the fact that they have been drawn into a wider social grouping - the world of Islam - in which such alternative theories are recognized. As members of a world-wide faith, the Fūr, even in their comparative geographical isolation, cannot have escaped being affected by ways of thought less parochial than those of a small, inward-looking agricultural community.

The 'cross-roads' position of Darfur has meant that people from other parts of Africa have brought their own beliefs and practices to the land of the Fūr, beliefs which have been moulded to a certain extent by outside influences, as West and North Africa have for long known the influence of the Western world. It will be remembered that among the books used by feqis are to be found treatises written by Islamic scholars who were educated to some extent in Arab science and medical practice. These books also contain ideas from further east, where arithmetical theories developed. The written word and the use of geometrical shapes and numbers have their place now in the mystical aspect of Fūr thought, but the fact that they are present is indicative of contact with ways of thought which have developed outside Darfur. Along with their use of alternative explanations of sickness, the use of the written word, numerals and geometric devices must indicate a certain openness in the Fūr system of thought.

In a recent paper Holý examines the question of analysis and classification of custom and belief. He maintains that the actors' should select the data to be analysed and then the analyst would process this data.

In this way, the actors would draw the distinction between symbolic and technical thought and practice, (Holý, 1983:284-5). In dealing with the symbolic and the non-symbolic (technical) aspects of Berti thought, he maintains that symbolic classification is often less systematically articulated in thought than in analytical description and that Berti thought varies in explicitness and articulation with differing degrees of precision and ambiguity, (ibid. 287-8).

The technical-symbolic oppositional classification referred to by Holý would appear to correspond to the immediate and intermediate categories suggested in this study for classifying sickness cause. These are not mutually exclusive categories and both can exist in belief and practice. Depending on the situation and the level of explanation deemed suitable, one type of classification will dominate.

The nature of the survey questionnaire used in this study was of open-ended initial enquiries, followed by structured enquiries in certain areas. Thus, in relation to the cause of sickness, both hypothetically and in the case of personal experience, informants selected the type of information they considered suitable as a response. As was shown in Chapter five, the majority of causes came into the category that Holý has termed 'technical', rather than that which he has termed 'symbolic'. Later in the questionnaire informants were specifically asked about the likelihood of mystical causation and the majority agreed to the possibility, but obviously this is not normally a dominant type of classification among the Fūr. Only rarely, in long term or unexplained sickness, or sickness of the emotional or mental type, would a non-technical cause be

given. Thus, it is possible to elicit two different responses from informants, depending upon whether the informants or the analyst decide upon the data to be used in analysing the thoughts and beliefs of those informants.

The Fūr do not seem to have in their body of knowledge concerning sickness and healing, any strict demarcation between symptomatology deemed to be caused by factors of the natural, empirical level and that perceived as being due to factors of the mystical level. An exception occurs in the case of mental disturbance, abnormality or 'paralysis' of motor activity of sudden onset<sup>1</sup> and impotence, all of which inexplicably threaten vitality. These are believed to be solely due to mystical factors. The majority of common complaints, fevers, diarrhoeas and stomach troubles, aches and pains, headaches and coughs and colds, may be ascribed causes at the natural or mystical level, but natural level causes are more common. However, if an individual is troubled by symptoms for a long time, which may in themselves not be serious or threatening but which fail to show signs of improvement or are apparently recurrent over months or years, even if the original cause was thought to have been of the natural order, a mystical cause will be ascribed to the affliction eventually.

To return to the original natural/mystical categorization of causes of sickness. Literature research and discussion with a number of scholars of Darfur had encouraged one to hypothesize a traditional system of medicine

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1. Such as might occur in epilepsy and hysteria.

in which sickness cause was invariably articulated as being of a mystical nature although natural causation was also a recognized possibility. However, during the initial stages of participant observation it became increasingly evident that informants - key informants, healers and ordinary Fūr people - were hardly ever citing mystical factors as causative of sickness in general and were only occasionally doing so in personal case histories. With specific enquiry into the likelihood of mystical factors (other than God) causing sickness, it became clear that this was always a possibility but was not usually considered as a primary probability. With regard to the Deity in causation, it was usually difficult to distinguish between the over-riding Islamic expressions of the concept of general causation and the possibility of positive intention to cause sickness. The individual concept of divine retribution was often quoted in theory but rarely when personal problems were in question. Thus, it became clear that here was a situation that was not at all clear-cut and which was not following the lines of the majority of previous studies. A particular symptom could result from either level of causation and a causative factor would produce a number of different afflictions. The severity of disablement was not a distinguishing feature of causation either. Some of the most (physically) incapacitated individuals encountered attributed their infirmities entirely to natural causes, while others who seemed to be able to carry on with their normal activities and who suffered relatively little in the way of discomfort (by their own admission), were certain of mystical causation.

When an individual is sick and believes the sickness to be of the natural level of causation, he or she may consult either a practitioner

of country or modern medicine; the decision of which to consult will probably rest on previous experience, distance from the practitioner or treatment centre and general knowledge that the materials of therapy are available at the time. Only if the sickness is of mental or neurological symptomatology and is believed to be due to mystical factors, will a practitioner of country medicine (a feqi) be the first healer to be consulted. A practitioner of modern medicine may well be consulted at a later date, should recovery not occur, if the practitioner of country medicine advises or the sufferer decides to 'make sure of all possibilities'. Failure to recover from a sickness almost always results in multiple consultations and therapies.

The fact of alternative causes and therapies is indicative that the Fūr do not correlate cause, therapist and therapy into two distinct categories such as mystical and natural or country and modern, but that they regard them as being of a complementary nature. In this way, it is suggested, a wider range of explanatory causes and therapies can be employed in the quest for cure. When the expected does not occur and the more obvious therapy does not produce its expected results, another course of action can be tried if the conceptual basis has another dimension and movement between the two dimensions is unrestricted.

In an agricultural society where personal relationships do not tend to pressurize individuals, it should not be surprising that people should place the locus of power with the seasons and the elements. Their lives depend upon them. The burning rays of the sun, the life-giving rain, the chill of the winter night and the stifling dryness of the dust-storm recur in annual sequence. These factors, and others, echo some themes

found in Arabic medicine, in the theory of the four humours. Such ideas might easily have travelled with traders and pilgrims to Darfur in previous centuries.

In a society where scientific experiment and logic is not known, when common sense and observation fail to explain satisfactorily, missing links in the 'chain of causation' may be accounted for by mystical notions, (Evans-Pritchard, 1937:12), or as Horton would say, by 'theoretical thinking'. The locus of power, then, can alternate between the various possible immediate and intermediate level causes known to the Fūr, causes which have their foundation not only in religious belief but also in pragmatic reasoning. Due to their geographical position as well as to their conversion to Islam, the Fūr have also been in a position to add certain concepts to their fund of knowledge which are part of Islamic culture, without having actually experienced scientific logic and experimentation. As a way of life, the teachings of the great Arab and Persian physicians would have been known, even if only in the most simplistic form, to urban dwellers of the Muslim northern African lands, from whence came traders and religious teachers. Such teachings do not seem to have profoundly affected Fūr thought, although they have, no doubt, coloured it.

As a field researcher one is aware of the necessity of being (somewhat ambiguously) both informed and yet receptive to all one encounters - to look for the data to confirm (or disprove) the hypothesis and yet to be receptive to that which is novel. Data collected during the earlier part of fieldwork for this study seemed not to correlate

with that which had been tentatively hypothesized and so this was reassessed and further data gathering was modified in an attempt to clarify the situation. Contrary to the hypothesis, it was found that the majority of Fūr did not perceive sickness cause in the mystical mode, at least not initially, and that referral to a practitioner of medicine did not follow from type of sickness or belief as to causation.

Due to the many influences upon them which have been described in this study - geographical, governmental and educational - the Fūr have become aware of modern advances and technology, and of their own relative deprivation. They have experienced (even if only minimally) economic and political institutions of the developed world. Their's is an example of a society which is not developed, has a low level of technology and yet possesses a mode of thought in which the world is not Man-centered and personal. They remind us to beware of 'anthropocentricity'.

The contribution of this thesis is to show that a society which is simple technologically may take a scientific approach to decision making. Anthropologists, perhaps, have been too simplistic in their acceptance of the correlation between isolation and lack of technology with 'mystical' modes of thought and decision making.

APPENDIX I

SOME HISTORICAL NOTES

Early accounts of Darfur:<sup>1</sup>

W.G. Browne was the first European visitor to Darfur. He travelled there in 1793, at least 200 years after the establishment of the Kayra Sultanate. He remained in el-Fasher, the final capital of the sultanate (and present regional capital) for three years. The next traveller was Muhammed <sup>C</sup>Umr al-Tunisi who, as a young man, spent the years 1803-1811 in Darfur. Towards the latter part of the 19th century, Gustav Nachtigal, a physician, spent some six months in el-Fasher just before the downfall of the sultanate under Ibrahim in 1874. All three travellers have left detailed accounts of the ways of life in those times as well as transcriptions of oral histories related to them, concerning the previous century, Nachtigal's giving the richest collection of oral traditions.

Early historical traditions of Darfur:

Tora houses:

The Tora houses,<sup>2</sup> with their thick walls of well-packed large and small stones, stand today in good condition except for the loss of their roofs. The majority of houses are single-roomed cottages but some have linked rooms, a feature not found in contemporary cottages, which are otherwise similarly built of dry-stone walls. One other feature of these cottages and other buildings are the door lintels which are a single slab of stone.

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1. The main traveller-historians are Browne (1799), al-Tunisi (1854) and Nachtigal (1971, new edition).
  2. Balfour-Paul (1955) has several diagrams of dry-stone palaces, more complex than the cottages personally observed.

The 'Wise stranger" legend:

O'Fahey suggests, the story of the 'Wise Stranger' encountering a remote and uncultured people, introducing new and refined customs (in association with food and hygiene), marrying the daughter/sister/former wife of the ruler and so beginning a new dynasty, serves 'as a device legitimizing the take-over by the Keira from the Tunjur'. (O'Fahey & Spaulding, 1974:114.) Whatever the relationship of Shau Dorshid and Daali, Shau is always referred to as the last Tunjur monarch and Daali the first Fūr ruler.

The traditions of the three dynasties in the Darfur region are often at odds with each other and the time scales do not marry up sometimes. In several articles,<sup>1</sup> following the finding of pottery fragments, Arkell has attempted to reconstruct the history of Darfur before the time of Sulayman Solong and he has suggested that the Tunjur may have ruled as early as the eighth century perhaps as an offshoot of the Christian Nubian kingdom of Makuria. However, as O'Fahey points out, the evidence for this is not great, and it could merely signify the presence of Nubian traders in this area and on into Chad (O'Fahey & Spaulding, 1974:114).

Sulayman Solong:

Sulayman Solongdongo<sup>2</sup> or Sulayman Solong, as he is better known appears in various traditional accounts. He is believed to have had (or to be descended from) a Kayra mother and an Arab father and to be possibly the

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1. Arkell, 1936/1939/1946 *Antiquities of Darfur in S.N.R.*, 1951/1952 *History of Darfur in S.N.R.*, and 1959 in *Kush*. Arkell, 1955:173-7. Arkell hypothesizes a link with the Divine Kingdom of Meroë, Barth with the area south of Sennar, and Browne with the north.
  2. Solongdongo (F.) = Arab or 'one with reddish complexion'.

eighth ruler after the legendary Daali. It is Sulayman who is credited with uniting the Fūr and non-Fūr peoples of Jebel Marra and the surrounding districts and also of subduing the region as a whole. His reign corresponds with the time of expansion of trade with Egypt.

The Kayra sultans:<sup>1</sup>

The Kayra sultans are listed below with the dates given by Arkell (1955):

Sulayman Solong	1640-1670
Musa Sulayman	1670-1682
Ahmed Bukr	1682-1722
Muhammed Daura Ahmed Bukr	1722-1732
Umr Le1 Muhd Daura	1732-1739
Abd el-Gasim Ahmed Bukr	1739-1752
Muhammed Tayrab Ahmed Bukr	1752-1787
Abd el-Rahman al-Rashid Ahmed Bukr	1787-1802
Muhammed al-Fadl Abd el-Rahman	1802-1839
Muhammed Husayn Muhammed el-Fadl	1839-1874
Ibrahim 'Garad' Muhammed Husayn	1874-1875
'Shadow Sultans'	1875-1898
Ali Dinar Zakariya Muhammed el-Fadl	1898-1916

After Sulayman Solong, the next major event in the history of the Sultanate was the reign of Ahmed Bukr and the expansion of the state north and west, under his administrative guidance. The mid-18th century was

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1. Arkell (1951, 1952, S.N.R.) and O'Fahey (1974 in O'Fahey & Spaulding) are the main sources for this period.

taken up with wars with the neighbouring sultanate, Wadai, when two sultans were killed, after which Darfur, under Muhammed Tayrab, began to expand eastwards into Kordofan. Abd al-Rahman al-Rashid, the brother of Muhammed Tayrab, followed him and re-organized the administration of the Sultanate to conform more to Islamic practice. He had himself lived the life of a feqi for some years before succeeding to the throne and then encouraged religious teachers and merchants from the Nile. The rule of Sultan Muhammed el-Fadl was marked by the fighting against the Turco-Egyptian forces of Muhammed Ali and that of Ibrahim Garad by the invasion of Darfur by the slave trader Zubayr Rahman Mansur, (Zubayr Pasha) not long after the visit of Gustav Nachtigal. The Fūr did not respond to the Mahdi's message in general, having retreated to their mountain stronghold following their defeat by the Egyptian government forces. A number of 'shadow sultans' ruled from the stronghold of Jebel Marra, to whom the Fūr were extremely loyal, until the grandson of Muhammed al-Fadl, Ali Dinar, declared himself sultan in 1898.

APPENDIX 2

THE FEQI

The feqi in Darfur history:

The predominant feature of Islamization in Darfur appears to have been the missionary activities of feqis, who were encouraged by the sultans. Islam came to Darfur along various routes - from the Maghrib via Kanem-Bornu and Kufra and from Egypt via Asyut, the trade routes, as well as from the west via pilgrims on their way to Mecca, and from the Nile. Although there is little confirmatory evidence, O'Fahey is inclined to think that the earliest wave of feqis came from the west, in the time of the Tunjur - in the late sixteenth century, (O'Fahey, 1980:117). Earlier association with Muslims occurred when merchants and traders visited Darfur from North Africa and Egypt, with their camel caravans. Feqis from the Nile valley then began to migrate eastwards to Darfur in the eighteenth century and a number of families trace their ancestors back to the feqis who came to Darfur at this time. Thus, Darfur was influenced from North Africa, which had been Islamized during the first phase of expansion of the faith in the first few centuries AH, as described by Trimmingham (1980:34) and also from areas Islamized during the second phase (ibid.) of the penetration of Islam into Africa. This means that a number of quite different African traditions came together in Darfur and, no doubt, had some influence upon the resultant unique features of Darfur Islam.

Feqis from the west were most probably passing through Darfur on their pilgrimage to Mecca. When they began to pass through the region is not

known, but it is most likely that the establishment of Muslim states along the Savanna route during the sixteenth and seventeenth centuries, made it safer and more popular (O'Fahey, 1973:51). Arabs came to Darfur from the Hijaz and from nearer lands, such as the ancestors of the imams of the mosque at Turra, who are also the guardians of the graves of the sultans, who came from Kordofan. These feqis often married into Fūr families and settled down to teach and were encouraged to remain by the gifts of estates from the sultans, from which the feqis collected the dues. The ancestors of the Turra imams, Emran and Idris, were given land by Sultan Musa Sulayman and their descendants still collect the annual payments from those who now farm the area. This picture of the immigrant feqi, his intermarriage with a local family and proliferation of the religious family endowed with the blessing (baraka) of the founder, would seem to be a phenomenon localized to Darfur, according to O'Fahey (1974:166). The religious brotherhoods of the riveraine Sudan did not gain such importance in Darfur and to this day it is only the Tijaniyya order or brotherhood which has any real following.

Although the brotherhoods are not well represented in Darfur, the majority of feqis are in fact şufis. They belong generally to the Tijaniyya şufi order (ṭariqa), which is found in rural and urban areas, meeting in the mosque before the maghrib prayer on Fridays to perform their non-emotional, simple dhikr. The Tijaniyya is a widely spread brotherhood and the feqis from both east and west belong to it. (Those from the west are generally known as Fellata in Darfur, and elsewhere in Sudan, while those from the east are called Jawami<sup>C</sup>.)

It would seem that the socio-economic aspects of land and security, prestige and privilege which encouraged religious migrants to Darfur were important in the process of Islamization of the sultanate, but so also was the attraction of the frontier of the land of Islam to those with an adventurous or missionary spirit, and may have been 'motivated by the search in exotic lands for knowledge of "the science of talismans, of the names of God and of tanqir (meaning not known, magic?)"',<sup>1</sup> (O'Fahey, 1980:118). As a result of migrations to Darfur, by the eighteenth century there was a network of feqis throughout the sultanate. Internal migration also occurred from primary to secondary centres and back.

Feqis became indispensable to the ruling establishment in Darfur in a number of ways: they acted as scribes, judges, imams and could mediate between the sultan and aristocracy and the people of in political conflicts. This aspect of the role of feqi is well documented by O'Fahey in Brett, 1973:49-56 and also in O'Fahey, 1980:115-130. In exchange for the land and privileges they received, the feqis were able to offer their knowledge of shari<sup>C</sup>a law and procedure, literacy, worldly wisdom, political neutrality and various spiritual and therapeutic services, depending upon their varying abilities, (O'Fahey, 1980:120).

The Muslim holy men who travelled to Darfur in historical times and those who today follow in their footsteps, have much in common. A few feqis are graduates of al-Azhar University, Cairo (the highest seat of Islamic learning), while others may have attended lectures there or in

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1. O'Fahey is quoting from Zayn al-<sup>C</sup>Abidīn, Muḥammad b. 'Alī (1975) Le Livre du Soudan, CNRS (mimeo), transl. M.G. Crisard et J.L. Bacqué-Grammont, Paris.

less prestigious centres, while others are simply graduates of Qur'an schools who can recite all or part of the Qur'an from memory. Many only travel within Darfur but there is a sizeable number of holy men who have been to the Gezira and to Khartoum, staying there for some years in order to gain sufficient funds to make the homeward journey.

The term 'feqi' (which is the colloquial Sudanese rendering of faqih - Islamic jurisprudent and theologian) is applied in Darfur to any man who has attended Qur'an school, and who can read and recite all or part of the Qur'an, as well as to a religious leader who may be descended from one of the original immigrant feqi families. In Jebel Marra the term 'feqi' is used for all, however notable a personage is the individual but in the lowlands around Zalingie and to the south of the Western District, the term 'goni' is used for a reputed, senior holy man. Abd el-Jalil has categorized feqis as being of three main types, as follows:

1. those who have learnt all or part of the Qur'ān and travel from place to place performing therapeutic and prophylactic services for the villagers and townspeople;
2. those who have finished reading the Qur'ān but have decided to lead a secular life as farmers or merchants;
3. the heads of Qur'ān schools who may be gonis or those who have studied with a goni, who teach adult students, who themselves are teachers of more junior students.

(Abd el-Jalil, 1974:38)

Similar categories have been made by Holt (1961:197), who describes those feqis of the first group as 'social parasites, battenning on to the credulity of the ignorant villagers through superstition which was common to them'. This may be a fair assessment of some individuals but would seem to be a sweeping generalization and an inadequate dismissal of the whole group - certainly of those encountered in Darfur.

A way of life - muhajir to feqi:

In Darfur it is still customary for most boys, particularly in the rural areas, to leave home at the age of seven years, with a young friend or relative, to seek a teacher of Qur'an and to work or beg for their food. Often they live with the feqi and his family and work on his farm in repayment. In such instances, the feqi's wife feeds the boys. Young boys and the adult men who adopt this life style are known as muhajarīn (Ar. sing muhajir), which is strictly translated as 'emigrants', but which in Darfur could perhaps be more accurately rendered as 'wanderers' as they do in fact just go from place to place and from one feqi to another, staying longer in places where they can find work, food and a teacher of repute.

The school run by a feqi is known in Darfur either as a maseek or a som<sup>1</sup> and may consist of a stone cottage in Jebel Marra or a goṭiya<sup>2</sup> or rakūba in the lowlands. It could also take place under a shade tree. The standard varies considerably; some have been recognized as suitable places of learning by the government and the feqis of these establishments are given a small stipend in encouragement. In some villages, the community have collected money to buy materials to build the school. The teaching usually takes place outside, often around a fire, the building is the dormitory for the boys.

In urban areas the students sometimes live at home and attend formal schools but go twice a day to the feqi, early in the morning and before sunset, for their religious education. Sometimes young girls also attend

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1. maseek and som are both used by the Fūr; maseek is the colloquial form of maseed (Ar.), som is the Fūr. In other parts of Sudan, this type of school is called a khalwa (Ar.).
  2. goṭiya (Ar.) - small round cottage made of gas<sup>C</sup>ab - thick grain stalks.

the Qur'an school; they are usually related to the feqi and do not wander from one school to another at any time. Usually, girls only attend until the age of nine or ten years, certainly not after puberty.

Mahajarīn often travel widely in their searchings for reputed feqis and, in consequence, build up a wide network of friends and gain a knowledge of the countryside that may be indispensable to them in later life. They probably travel much more during their early years as muhajarīn and then, when they are more mature, settle with a well-known feqi for some years before completing their studies or becoming feqis themselves.

Having arrived at his chosen school and been accepted by the feqi, the student moves into the school accommodation or into the household of the feqi, if the school is not large. He then joins in with the activity of the day or awaits the next teaching session.

The day starts early for the muhajir, at about 4.00 am. when he is woken, along with the other students, by the feqi. The muhajarīn make a fire in order to boil water for making tea and they then start to chant their prescribed portion of the Qur'an. This chanting tends to sound monotonous as each student almost shouts his verses, in order to hear himself above the others, all doing the same thing. When the feqi listens to a student and feels satisfied that the portion is recited correctly, he then gives another. He writes the new portion on his loḥ and the student copies this onto his own writing board and begins to recite. After about two hours, the students finish and get ready to go to the farms to work, perhaps begging for some food on the way by chanting at homestead doorways - it is one of the five pillars of Islam, to give alms to the poor - and most

housewives are pleased to do this. The wife of the feqi may prepare a meal for the muhajarīn during the day or they may fend for themselves. They work all day on the farm and then return to the school in the late afternoon, collecting fire-wood as they go. When they return, they eat their evening meal (prepared by the feqi's wife or by themselves), make tea and build up the fire, the light of which is the means by which they read. They then start the second session of recitation. At this time of the day, the boys may be joined by some girls and by small children who do not yet learn the Qur'an but who sit quietly around the fire with their older brothers and other muhajarīn. The little ones, in fact, do often pick up what the students are reciting and recite with them, so that by the time they are seven or eight, they are well prepared to begin learning themselves. After this second session of recitation, the muhajarīn usually retire to sleep.

When the Qur'an school student reaches the age of about fourteen years, he decides for himself whether to continue with his studies of the Qur'an or to return to his own village to farm with his father, or he may go to try to find some wage labour in order to collect money for his marriage or to begin as a trader. There is still a tendency for young men to travel to Khartoum and the Gezira in search of work and money.

If the young man decides to continue with his learning of the Qur'an, he may go on to find a feqi with greater knowledge or a goni (depending upon the stage he has reached). Such teachers are found scattered throughout Darfur, mainly in the urban centres and bigger villages. The older student will learn about religious and legal texts and may also begin to teach younger students himself. There are examinations arranged by the

authorities on religious affairs for students of Qur'an at all stages as well as others arranged by reputed feqis. At this stage the older muhajir may marry and either bring his wife to live with him, or spend some time first working for her father before returning to his teacher. Some students remain many years with their teacher before they feel they can start a school on their own. During this time, they also learn of their teacher's ways of healing and read some of the books on magic and medicine.

The feqi as Islamic teacher:

After completing many years of studying the Qur'an with a number of feqis, perhaps finishing with a goni, and travelling to other parts of Darfur and Sudan, the feqi decides upon which village or neighbourhood to establish his school. This may be in his home, in the village or neighbourhood of his wife or another place where he has some connection. In order to illustrate this aspect of a feqi's life, some biographical details will be given of a well-known and respected feqi who lives in Azumiya neighbourhood.

At the time of fieldwork, Feqi Ahmed had recently established (in 1979) his Qur'an school in Azumiya but before this he had a school in a small town in the north of the Western District and another in el-Fasher. He studied with one shaykh for fifteen years before establishing his own school. By this time he had memorized the Qur'an and had attained a deeper knowledge and understanding of Islamic law and theology. Feqi Ahmed remained in this town for twelve years and married there. After this time,

in his mid-thirties, he decided to become a merchant and moved to Zalingie. After some years, when his business and farm prospered, he was visited by people he knew from el-Fasher asking him to go there to establish another Qur'an school. A new school had been built and he was to be paid £S.5 a month by the government and £S.5 by the owner of the school. He spent some years in el-Fasher, until the people of Azumiya requested him to establish a school in their neighbourhood. He arrived in 1979.

Feqi Ahmed has some 60 students in his school. A few live with him and the rest live with their families in the neighbourhood. The school is located almost at the top of a hill where his third wife lives (he divorced his first and the second lives in the centre of the neighbourhood - it is she who actually looks after the students). In the homestead of his third wife, there is plenty of room for the students to light their fires and to read at night, sitting around the fire.

During the dry season there are two sessions of learning, somewhat later than the times of Jebel Marra - the students begin at around 5.00 am. and go on till 6.00 am. They then return for a second session at about 4.30 pm., earlier than in Jebel Marra. This lasts until about 6.30 pm. During the rainy season, when there is much farm work to be done, there is only one session, in the evening. Children who also attend formal schools go on for their lessons after they have been to the feqi.

During the day, when his students are away, Feqi Ahmed spends his mornings reading the Qur'an or other religious works and may see anyone seeking his services as spiritual or medical healer. During Ramadan he conducts a class for adults in the mosque, where each member of the group

reads a portion of the Qur'an allotted for that day on which he then advises, as to the manner of delivery of the recitation, diction and intonation.

When instructing students, the feqi first writes the portion of scripture on his own loh with his wooden pen and gum arabic and soot ink. The handwriting of Feqi Ahmed, and of many other feqis encountered, is beautifully proportioned, flowing and clear to read. Each student carefully copies the script of his teacher onto his loh. He then reads to the feqi, who corrects where necessary, and then goes to recite the verses until he knows them by heart and can also write them. When he feels he knows them sufficiently, the student recites his verses to the feqi and is either passed or helped where necessary, in order to improve. He is given a new portion when the first is satisfactory.

At intervals there are examinations in Qur'an and boys compete in their areas, the best being sent to the province headquarters to be examined with others from all over Southern Darfur. There is strong competition at these examinations and the people of Azumiya are proud that one of their sons has won the prize for two successive years.

Not all feqis have the government stipend which Feqi Ahmed enjoys, and their schools are very often smaller. They may also not be of the same standard but the pattern of rote learning is much the same throughout the Region of Darfur.

APPENDIX 3

SOME COUNTRY MEDICAL THERAPEUTICS

Kaywa sajaing (F.) Abortion

During late pregnancy, if it is thought that the foetus is 'sleeping' and will not 'wake to be born', then the mother chews seeds of maḥlab, (Ar.) and drinks hot water in order to promote the abortion of the foetus. If this fails, pieces of the stem of Dead Sea Apple (dolla, F.) may be introduced per vagina to produce the abortion. Other plant materials are also used for this purpose, especially the roots, which are either packed into the vagina whole, if small, or powdered and made into a thick paste if obtained from a tree. Such practices often result in vaginal stenosis or fistulae and infertility.

Rong assar, (F.), literally = river gonorrhoea; Bilharzia or schistosomiasis Rong assar is believed to be caused by 'playing in water' or 'playing in hot sand' or simply by coming into contact with water in seasonal rivers and irrigation canals in particular.

Two methods of treatment for this disease were related by several healers. Both involved the drinking of a medicine. One is prepared by boiling mint, rue and some other herbs in water and then drinking the decoction as a herbal tea, for several days, the other required the steeping of the peeled fruits of Balanites aegyptica in water, overnight. The resulting infusion is then drunk by the sufferer every morning for 3-7 days, depending on the severity of the symptoms. Blood in the urine is known as rong assar.

## Bites

The traditional healers of Darfur have a wide variety of therapies for dogbite - often assumed to be rabies - snakebite and the bite of any other animal.

For the bite of any animal it is recommended that the fur of that animal be placed on the wound. For a dogbite, the place of the bite should first be hit with a leather shoe and then the hair of the animal should be placed on the wound. If the dog is unavailable to donate its hair, then the whole area should be cauterized. The powdered roots of kongu (F.) and marara, (F.) may also be taken twice a day as snuff.

## Sa<sup>C</sup>ar (Ar.) Rabies

The following treatments are said to cure rabies. Although the Fūr realize that not all dogbites are from rabid dogs, but they also insist that there are people who have been cured from rabies.<sup>1</sup>

1. Of prime importance is the use of mihaya for the one bitten to drink. The majority of healers would also add the seeds of the thorn apple, Datura stramonium, (L.) to this. These seeds contain the poisonous and narcoleptic agents scopolamine and hyocyamine.
2. Another well known therapy involves the use of the meat of the ground hornbill, (zulum, F. or abunduluk, Ar.). The meat of this large black bird (with a wingspan of about 5ft.) should be cooked, or dried and eaten by the individual suspected to be suffering from rabies. It is not a very convenient cure, and may not always be available.
3. There is a climbing plant called sanān, (F.) (salāla, Ar.), said to be leafless but which has modified leaves, and in which 'snakes cannot live'. If this plant is pulverized it may be used as a local treatment for the site of the wound.

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1. Modern medical literature regards rabies as being 100% fatal.

## Snakebites

For snakebites there are also a variety of therapies.

1. As a preventative measure an amulet may be worn, which has been previously prepared for such an event by a feqi. This however, is only expected to prevent the wearer from being affected by the bite, it will not prevent the bite occurring.
2. CAzīma may also be performed before the occasion arises - for example, before going on a hunting expedition. CAzīma may also be performed over an area which has been bitten.
3. Mihaya may be given both to drink and to wash the wound site.
4. The root of the plant kurtudagal, (F.), may be powdered and applied to the punctures 'in order to extract the remains of the fangs', after making several incisions over the area with a razor blade.
5. Birait, (Ar.) which is similar to the onion, may be placed over the site 'to absorb the poisons'. This is said to work within two to three hours.
6. Some healers advocate the use of a decoction of certain roots which will induce vomiting.

## Burns

Children are most commonly treated at home by their mother or another female relative and the preferred method of treatment is to bathe the affected area in human urine. If this is not successful, however, the mixture for making kisra, ajīn (Ar.) - a type of batter (made from millet flour and water) - is used to cover the burn.

Other methods for treating burns in adults include covering the burn with the fur of a rabbit. The rabbit is killed its fur shaved off and placed over the burn site, and apparently healing is promoted by this method. This is said to be a specifically Fūr treatment, a statement made by both healers and elders. The outer layers of the stalk of fennel,

biri, (F.), may also be placed over the burnt area and secured in position until healing results, when it is removed easily. A method which, according to a Fūr nursing orderly, usually heals without infection is to cover the site with rabbit faeces.

If contractures result from the healing of a burn, the fat of the ostrich (sumo, F.) is melted and applied locally after the area has been 'scrubbed'. The fat is applied with a feather rather than the hand as it is said to have a harmful effect on the skin.

### Eye problems

Children suffering from sore, red eyes (probably conjunctivitis), which often happens in the dry and dusty parts of the year (October-June), are treated by the feqi with <sup>C</sup>azīma, while adults are given miḥaya to drink and to wash their faces with, for three days. Another treatment involves the use of the fat of a wolf, from which oil is obtained, and this is put into the eyes. An alternative, and very expensive treatment, is to use dried and powdered wolf eyes. (One of which may cost the equivalent of £50.) Drops are then made from the powdered eyes mixed with water.

A less expensive method, used particularly when the eyes water a great deal, is to make tiny incisions around each eye, near to the nose below the eye, on the eyelids and to the sides of the eyes. Many people in Darfur do in fact have such tiny marks. The method is said to be of Birgid origin, but is now fairly universal in Darfur.

### Turringa (F.) Trachoma

This disease of the eyes involves the eyelids and cornea and is common in hot dry areas of the world. It may be so severe as to cause blindness. It is defined (in modern medicine) as a granulomatous viral conjunctivitis and it is the granulations on the inner surface of the eyelid that the healers attempt to cure.

Charcoal and natron (naturally occurring sesquicarbonate of soda) are rubbed on the inner surface of the eyelid and on the surface of the cornea in order to remove the granulations. The leg of a locust, which has tiny claw-like protuberances, is also used to rub down the granulations and may be, temporarily, successful. After some time, however, there is regrowth. A further method involves the use of the cooking additive, kawal. First of all, the inner surface of the eyelid is rubbed with a piece of cloth until it bleeds and then a small piece of chewed kawal is applied. (Kawal is made from the leaves of Cleome viscosa.)

### Katarakt (Ar./F.) Cataract

This opacity of the lens of the eye has been treated by the Hausa immigrants in the Sudan, using an operative technique known as tashliq (Ar.). A similar operation is performed by some Fūr practitioners. A needle is first held in a flame and is then used to push the lens into the posterior chamber of the eye, giving an immediate improvement to the sight.

Drops made from the eyes of the wolf may also be used for those suffering with cataract.

### Corneal opacity

This generalized cloudiness in the eyes may be treated with sugar and sand particles, which are ground finely and applied to the cornea overnight or with the crushed grey crest of the secretary bird, likewise applied to the eyes. Another surgical procedure carried out by some practitioners is that of removal of the cornea.

This is done with an instrument called a fallang, (F.) which is rather like a scalpel. The operation here involved lifting the edge of the cornea then dusting it with powdered roots and bandaging for 7 days. After this time the bandages are undone, the cornea has dried up and will easily come away from the front of the eye and this gives at least a temporary improvement in sight.

### Chest infections

Commonly, chest diseases and coughs and colds are treated with infusions or decoctions of roots. These are numerous as every healer has his own particular root or mixture of roots which he prescribes to those who seek his attention. Making small incisions with a razor blade over the site of the condition is another fairly well-used method, also cautery.

If the sick individual is deemed to have bronchitis, ganatu, (F.), then the milk of a black donkey will be administered once, when the cough is productive. Another recipe for productive cough is the soup of a large black bird called simbiriya (Ar./F.) or the soup may be made from fish boiled in water and oil. This is taken for a week. Also, wasps may be collected, boiled in water and the liquid taken for a week.

Tururu, (F.)

This is a chest disease of babies and small children marked by difficulties in breathing, a slight fever and refusal to eat. The child is given either hajar or figar, (F.) roots to chew once or twice or these roots may be burnt in a censer and the smoke inhaled. After such treatments it is said that the child will begin to feed again.

Namu, (F.) Cold

Colds are usually treated either with infusions and decoctions or inhalations. The following are mostly well-known remedies and probably most older women would know at least one of them.

A decoction of the pods of the sunt tree, Acacia arabica, (L.) and the red sepals of the rozelle hemp, Hibiscus sabdariffa (L.) (fundu) (F.) which contains vitamin C, is made and drunk while hot. It may also be taken cold, with much sugar. These same two ingredients may also be burnt over charcoal and the smoke inhaled. Another decoction is made with the sunt pods and millet and taken warm.

For a 'cold on the chest', the red root irig el-nar, (Ar.) and the pods of the sunt tree are boiled up together and then a little oil is added before the mixture is taken. For a 'cold in the nose', a pungent infusion of the leaves of darru, (F.) is sniffed by the sufferer. Apparently this medicine is so 'hot' that one may fall down after taking it. At the same time it is guaranteed to relieve the cold symptoms.

Another treatment from the mountain areas is to make a decoction of a number of roots and bark of several trees. The roots are, irig el-nar, the grass Andropogon sp. (bor), seware, fūs, roro, and millet. The

barks are from tūni, ara, duyo, duofe fata and numungbugole (all Fūr names). These are not all easy to find and it may involve searching the whole day before the mixture can be prepared.

For a child with a cold, the crushed roots of the grass Andropogon sp. (bor) and millet are boiled in water with oil of sesame and then other roots are added - irig el nar, duofe fata, tūni, suware, bind, mandinunbot (all Fūr names) - all these are then mixed with chicken soup and given to the child to drink.

#### Julunga or nunga, (F.) Cough

As in the case of colds, there are numerous remedies for coughs, some of them are prepared from the same types of ingredients. The drink made from Hibiscus sabdariffa, is given to cough sufferers. A soup prepared from chicken may be recommended, and to this are added three roots, irig el-nar, (Ar.), irig el-murhabib, (Ar.) and irig el-shalug, (Ar.). The soup is taken for 3-4 days. The chicken soup may also be given without the roots, particularly following an infusion of powdered roots which act as an emetic. Also, the leaves of a small plant called dage-dage (F.) may be powdered and then smoked in a pipe for two days.

#### Baranga, (F.) Tonsillitis, inflammation in the throat

When a child suffers from a sore throat or tonsillitis, the mother or perhaps an older woman, skilled in the method, will rub crushed natron in water into the inflamed area and attempt to 'crush' the spots. The child then coughs and is given milk and a little oil to drink.

For a very bad cough and (according to the healer) for TB, rue (Perganum harmala, L.) and ginger are boiled together in water and drunk. This is followed by a meat soup, which may be substituted by oil, three times a day for two weeks.

Nongi, (F.) or e1-Cayn, (Ar.), The Evil Eye

Symptomatology resulting from evil eye enchantment commonly affects the whole body and the personality. Changes are vaguely sensed, at least to begin with and it is difficult to assess physiologically and psychologically.

The most usual form of therapy for such sickness is that of making miḥaya especially for the victim of evil eye, and adding an infusion of roots to it, or the thorns of several species of Acacia are cut into tiny pieces. This therapy may be embellished by the use of a red-hot axe which is dipped into the miḥaya to cool it and applies it to the elbows, chest, mid back, loins, knees, ankles, forehead and occiput. After this the remains of the thorns are collected and burnt to ashes. Another miḥaya is then made, the ashes are added to it and the sufferer takes this to an ant nest and washes with the miḥaya. This is done in the day time if possible without being seen, otherwise at night. Azīma is another treatment and prayers and chapters of the Qur'an which have 11 verses are recited.

Jowski, (F.), 'um fit-fit, (Ar.), sitan (F.), Fits (possibly epilepsy)

A child suffering from a fit is said to have jowski, (F.), or 'um fit-fit' and when the child is small it is thrown up onto the roof of the house and allowed to roll down, when it is caught. By this time the fit will have passed, it is said.

Adults or older children are said to be suffering from sitan, (F. - devil) when symptoms of fitting are observed. This is believed to be due to the individual having upset one of the supernatural beings in some way, knowingly or otherwise, perhaps by walking through an area held to be sacred to the spirit. The immediate treatment may be to recite verses from the Qur'an and drink miḥaya or it may involve the use of cautery on the forehead or back of the neck.

In order to prevent a recurrence of the symptoms, a samua (possibly rock hyrax) should be caught and slaughtered and the skin dried. The dried skin should then be worn by the individual.

### Fractures

Generally, short pieces of wood are used to make a splint. This wood is taken from the rib of the palm leaf and is quite strong. Lengths are cut to suit the limb - adult or child, arm or leg - and each piece is tied to the next with strips of cotton material, allowing about  $\frac{1}{2}$ -1 inch between the pieces. Before the splint is put on, the healer applies traction to the limb and when he is satisfied with the result, he winds cotton wool - if it is available, otherwise pieces of cotton material have to suffice - around the limb and over this applies the splint, tightening it at both ends and perhaps also in the middle. The splint

is applied so that the fracture lies at its middle, with splintage covering perhaps 3-5 inches either side of the fracture. The joints are not immobilised unless the fracture is near a joint. The aim of the healer being to place pressure on the broken ends to prevent movement. (Modern medicine, however, teaches that both the distal and proximal joints must also be included in the splint to prevent movement, particularly rotation. Also, to prevent stiffness of joints and to enable the injured person to be as active as possible, the joints should be flexed to a certain degree - how much, depends on the site. With a traditional splint, a fracture near a joint will result in a straight and awkward limb.)

One practitioner had developed a mixture from flour salt and water, which he said gave a splint similar to the 'gyps' (plaster of Paris) splint. This type, the practitioner claimed, would 'allow the blood to flow and to prevent swelling'.

For a fractured clavicle (collar bone), a small bag of grain may be tied under the armpit to relieve some of the pressure of the weight of the arm - as a sling might do.

One healer related how he could manipulate the bones of the pelvis if there was a fracture in this region. He then advocated exercises to regain strength.

Fractured ribs are treated using a round piece of gourd strapped to the chest wall. This may be placed so that it should act to prevent movement of opposing bone ends, or it could be placed to depress the raised end of a rib so that it should become opposed to the other part of the bone. However, in practice, this operation is not as simple to perform as it might seem to be at first.

When a splint is to be applied, the healer first attempts to gain alignment and opposition of the bone ends. If there is any oedema in the area, this is treated by making small incisions over the area to let out the 'dead blood', and covered either with the bark of Cordia abyssinia (L.) or skin of a chicken. The limb is kept still and rested until the splint can be applied. After seven days the limb is unwrapped and assessed, corrected if necessary and re-splinted for two weeks for the upper limb and for 40 days for the lower limb. In the case of a child, the lower limb is splinted for 28 days only.<sup>1</sup>

If the fracture in the lower limb is of the femur, the individual is treated on the floor, where care is taken to gain the correct length of the injured limb by traction. Then the legs are bound together. It is very important that chicken soup and meat are eaten by the injured person during the period when it is believed bony union takes place, i.e. for 40 days after the reduction of the fracture.

Healers vary greatly in their proposed timings for weight-bearing following fractures of the lower limb, from 'immediately' to 'after the 40 days wearing of the splint'. It is however, unlikely that an individual would be able to do any more than perhaps touch the ground to keep balance if the fracture was a serious one, with only the support that one of the locally made splints could afford.

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1. cf. Modern medical practice where it is believed that a splint is necessary for 6 weeks for the upper limb and in the weight-bearing bones of the lower limb, for 12 weeks, until there is evidence of bony union.

Tobungwey, (F.) Headache

Practitioners of country medicine, and many other people, make definite distinctions between various types of headache, mainly based on the site of the pain and whether or not it is of long standing. Some people interviewed claimed to have had headaches which lasted for months and which had been finally cured by a certain shaykh.

This treatment is for longstanding headaches and can also be directed towards the area of the head where pain is felt.<sup>1</sup> To be treated, the sufferer kneels or sits near to the practitioner, who draws squares appropriate to the complaint on a piece of paper. Each square contains a symbol, letter or numeral, representing some codefied prescription now long forgotten and only found in ancient Arabic treatises on magic. The practitioner then takes a mangash (Ar.) - a tweezer-like instrument with a pointed end, kept in the sheath of the knife carried by every man - and with this instrument touches first the symbol and then the head of the one with the headache. Each symbol is touched 10 times while the practitioner recites chapter 112, Surat el-eklas, of the Qur'an, before moving on to the next symbol.

If the headache is continuous and bilateral, it is considered to be due to digestive problems. In this case the sufferer is first given senna after each meal for 1-2 days and then a similar process as that described above takes place. The mangash is touched onto the forehead in this case. Another informant, describing his own variation of this

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1. A number of informants insisted they suffered from one-sided headache of continuous and persistent nature. In modern medicine, however, such symptoms are synonymous with tumours of the brain. Although sufferers inevitably tend to think of their symptoms as 'continuous', they are perhaps better described as 'intermittent', and thus, could be migrainous in origin. (This was discussed with a number of Sudanese practitioners of modern medicine.)

treatment, also added his own magical word while holding the head of the sufferer in his hands, before starting the recitation of the verses from the Qur'an.

Other methods of treating headaches include the performance of Cazīma, recitations of verses from the Qur'an and other holy works, especially the Hadīth, as well as making many small incisions on the back of the neck with or without cupping. Sometimes cutting is carried out between the hairline and the outer corners of the eyes. Blood is then taken and put into the eyes. Bukhūr (perfumed wood) may be burnt in the room of the sufferer from headaches. Asafoetida resin may be added to the bukhūr, or it may be powdered and added to hot water, cooled and with addition of glycerine be given as nose drops. A less common medicine for one-sided headache may be made from the bones of the skull of a wolf. A traditional Fūr treatment is to wear bracelets and necklaces of ostrich egg shell beads.

### Gynaecological problems

Women suffer from many chronic gynaecological problems which are not quite bad enough for them to feel that they can leave their daily work to go to the hospital. Such problems as menorrhagia, abortion, amenorrhoea, salpingitis, backache, ovarian problems, various stages of prolapse of the uterus partly, at least, due to labour problems, as well as certain emotional upsets which occur naturally with hormonal changes. However, by far the worst problem to afflict any woman is that of real or apparent infertility.

For all the above signs and symptoms a woman is most likely to go to a fegī for help, at least in the first instance. Later, she might

try the treatment of the korongadonga. For the majority of problems the healer first gives miḥaya to the woman to drink and then may go on to recite verses from the Qur'an and to perform cazīma.

If there is not a noticeable improvement, at a further visit to the healer, the woman may be given another type of miḥaya. The words of the miḥaya are written on her right hand and she licks them off, thus perhaps concentrating the effect of the words. Bukharat, on which has previously been written a symbol for a verse or a few words from the Qur'ān, are also given, to be burnt over charcoal and the smoke inhaled for seven consecutive days, following purification ablutions, when not menstruating.

A similar treatment to the last one is given for a woman who does not become pregnant. This time 27 bukharat are given. Each day, three are to be burnt after performing the usual ablutions, for nine days following the end of menstruation. The ashes of each paper are then taken, mixed with a little sugar and put into the centre of the left hand and eaten. At the end of the nine days the woman should sleep with her husband. However, the feqi was keen to point out that whether or not this method of treatment works depends upon the 'biological circulation' of the woman. If the woman is not pregnant within three months, she must return to the feqi for further treatment. This takes the form of the feqi writing certain verses 41 times for 41 days - the odd number is an important feature.

Other practitioners prefer roots for their particular therapies. One method is to first 'clean the stomach' of the woman and this is accomplished with an infusion of roots, with presumably, a purgative action. After this, both the woman and her husband are given the 'root of fertility', powdered and mixed with a little oil.

An infusion of roots may be given to bring about pregnancy, but also these same roots may be powdered and made into a pessary and inserted into the vagina for the same reason. However, this practice has been shown by gynaecologists to in fact increase the probability of sterility due to vaginal stenosis.

Toyeng (F.) Impotence

Again, <sup>C</sup>azīma and miḥaya and recitations from the Qur'an are the usual first line of treatment for male problems varying degrees of 'loss of virility' to impotence. Another treatment involves the use of a root (irig el-nar) which is soaked in water and the bitter infusion is then added to miḥaya and drunk. The medicine is taken for 7-10 days.

Another practitioner had tried to embellish his treatment by using a root brought especially from Nigeria - which was powdered and eaten with cattle meat - and would guarantee potency for a year. The sufferer should then return to the healer for the following year's supply. Further to this, he maintained that he had started to test the power of his cure by getting the men he treated to lift a small water-jug (ibrīk) containing a rotl - (1 lb.) - of water with their offending organ.

Bidigir, (F.), Yaraqān (Ar.), Jaundice

Hepatitis is usually known by the above name in Fūr, which refers to the symptoms of jaundice. There are many and varied treatments.

Verses from the Qur'an are recited over the sufferer, together with the performance of <sup>C</sup>azīma. Miḥaya is made and the powdered root of seseban, (Ar.) and millet are added. The mixture is allowed to stand for a short time and then it is drunk.

Another treatment involves the use of a white chicken. One version is that the sick individual is taken to a cross-roads by the practitioner who then slaughters and cooks the chicken over a fire of tundub wood, Capparis aphylla, (L.). The sick person then eats the chicken alone and goes home. Another version is more detailed in its instruction and specifies that the most propitious time is in the early morning. The practitioner must give the meat of the chicken to the sufferer to eat without touching the bones. Then the sufferer must run directly home, without turning his head either to the right or left and go directly inside his house. The practitioner then buries the bones and any remaining wood in an ant nest.

The most popular method of treating this complaint - judging by the scars visible on people's arms, is by cauterization. This is carried out using an instrument like a long nail which is heated in the fire and then applied twice to each of several places - the upper and outer part of the arm (over the Deltoid muscle), the outer aspect of the elbow (over the upper half of the wrist extensors), the heels, above the umbilicus and occasionally on the tips of the fingers and toes. Some practitioners also read from the Qur'an and other books on healing.<sup>1</sup> They then give miḥaya to drink and some for the bathing water, which should be used in the early morning and at sunset for seven days.

Another fairly common method of treatment is to make small incisions on the wrists and at the elbow. Both this and the above method are used in other parts of Sudan, with minor differences. However, a particularly Fūr remedy is to make very tiny cuts on the thumbs.

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1. These books on healing were, in fact, old books of Arabic medicine, pages of which had been faithfully copied from copies made years beforehand, and handed on from teacher to pupil.

The green branches of the small tree or shrub saḥib (Ar.) are cut and laid on the bed or mat of the sufferer, who then lies directly on top of them. Some are boiled in water and cooled, and then given to the sick person for the following three days, whenever he or she is thirsty. After three days, the branches which formed the mattress are collected together and boiled with those previously used. A cupful of the decoction is then mixed with an equal amount of oil and given to the sufferer to drink. The rest is to be used for washing at a cross-roads, following which he or she would run home quickly without turning to look at anything.

The reason for this course of action - taking the sickness to a cross-roads and running home quickly afterwards - according to one very old grandmother, is that the disease will be left for a moment at the cross-roads and then may go any way.

Among the plant materials used for therapy are clover (barsim,) (Ar.) which is eaten raw, and root of the tamarind tree, Tamarind indicus, (L.) which is cut and boiled in water to obtain the decoction to be drunk early in the morning. This is done before eating anything else and is followed by yoghurt with sugar. Another medicine is made by mixing the powdered root of turrash (F.) with shavings of the horn of the rhinoceros, natron, powdered cloves and yellow sulphur. Two small incisions are then made, one on either side of the spine and two more on the palmar surfaces of the wrists. The powder is rubbed well into these incisions. One treatment only is necessary, it is said.

### Labour problems

In rural areas women often have problems during labour for which there is little relief except that from the feqi or rope-midwife. At such times the woman will be given miḥaya, have cazīma performed for her and recitations from the Qur'an. She may also have a rosary, whose beads she may bite when labour pains become intense.

If the labour is very long the first verse of Surat el-Baiyina, XCVIII, (which refers to obstinacy and rejection of light) is written around a gourd, then washed off with warm water to form miḥaya for the woman to drink. Other practitioners make miḥaya for the woman in labour of which she drinks part and rubs her abdomen with the remainder to ensure a live delivery.

The rope-midwife also helps the mother to move around and then she tries to massage the abdomen as the mother squats down or kneels on the ground, supporting herself by a rope from the roof of the cottage. The rope-midwife may also incise the perineum with a razor blade, especially if the mother-to-be has been circumcized - not so common among rural Fūr.

### Kewa (F.), baraṣ or judhām (Ar.), Leprosy

The Fūr word used for leprosy means 'blood' referring to its familial<sup>1</sup> nature; also said to refer to the small 'red' spots said to appear on the skin before the fingers are affected.<sup>2</sup>

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1. It does tend to run in families due to the "prolonged intimate" nature of family life, but is not hereditary.
  2. Possibly the dark nodules (of nerve involvement) which precede anaesthesia.

Miḥaya and Ḥazīma are prepared for those suffering this disease, using particular verses in the Qur'an which contain the word 'burn' (aḥraqa or ḥariq, Ar.), in order to burn out the disease. For those with the cutaneous (lepromatous) form of lesions, an infusion of crushed roots of irig el-nār is added to the miḥaya. Part of this is then drunk and the remainder is used for bathing for three days, after which time the cutaneous lesions are said to disappear.

Another prescription involves the use of either well or sea water,<sup>1</sup> to which is added khīṣṭal (Ar.) and henna. This mixture is then placed in an open vessel on any highway from evening till the following morning. The mixture must be made and taken once daily for seven days in order to arrest the course of the disease.

Among the dietary suggestions are that a soup of wolf meat should be taken and another in which no meat is to be eaten. This second remedy is in the form of a porridge made of millet that has been mixed with cow's urine, fermented for three days and then spread in the shade to dry. The root of irig el-nār is crushed and mixed with the ground millet flour and made into the porridge. The sufferer eats the porridge and drinks only milk and yoghurt, which results in severe diarrhoea. After this, 'if God wishes, he will definitely improve'.

Another awesome treatment for this dread disease is to prepare for the sufferer of leprosy, a medicine of the leaves of the Dead Sea apple.<sup>2</sup> One hundred leaves are collected and on each is written a verse from the Qur'an. They are placed in a water jar and covered for a week. The

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1. Darfur is about 1000 miles from the sea at the nearest point.
  2. Even the goats, nature's removers of all plant material, refuse and rubbish, will never touch this plant, even if it is the only thing around. It is extremely poisonous.

foul green liquid is then given to the sufferer to drink for seven to ten days.

### Mental disturbance

The varying degrees and types of mental disturbance, from behavioural irregularities to 'madness', tend to be grouped together under the term majnun, (Ar.) (possessed by jinn, insane, mad). The Fūr term ulul (literally - dumb)<sup>1</sup> is not so common, but sitan is also used, indicating that the person has been 'struck by a spirit or devil' rather than 'possessed' by one.

Perhaps the most common first line of treatment is the performance of cazīma over the individual said to be mad and then the feqi makes miḥaya for him or her to drink. Sometimes also, recitations are made from the Qur'an, especially ayat el-kursi. This may be recited 1000 times.

When the individual is deemed to be suffering from a fairly severe type of mental disturbance, he usually stays with the practitioner along with one of his relatives, who will care for his needs. This 'custodial' treatment may last from 2-4 weeks, more if the condition of the detainee necessitates. One practitioner recommended the addition of kawal to the miḥaya once a day, others favoured the use of incense to fumigate the sufferer, who is instructed to inhale the smoke from the incense. Many types of incense may be used, usually those with a fragrant aroma which, it is believed, will be efficacious in causing any possessing spirit to leave. Spirits which cause mental disturbances are believed to like dank, dark and bad smelling places. When not afflicting human beings,

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1. ulul - possibly catatonic schizophrenia.

they are to be located around dim corners, in dirty or dusty places, especially where there are unsavoury odours. Thus, to encourage them to depart, cleanliness and sweet perfumes are essential. Incense made of sandalwood with perfumes added, as is used to freshen the home, may be used or one specific to the problem such as that of musk, camphor and saffron. Particularly for sitan, a smoke bath may be used several times a day. For this the afflicted individual sits wrapped in a blanket over a small hole in the ground, in which are red-hot charcoals. The incense is dropped onto the charcoal and the smoke billows up around the person, under the blanket.

There are other adjuncts to the basic treatment with azīma and miḥaya: a daily burning of bukharat is sometimes carried out, usually for 40 days or cauterization may be applied to the back of the neck. The azīma may be carried out over water which is then partly drunk and partly used for washing the face.

Usually miḥaya is the only liquid taken and the one afflicted may be given only a light diet of kisra with a little oil and water. No salt is allowed. This is a particularly weakening diet and will reduce the antagonism of any unruly detainee, however deranged and aggressive.

Alternatively, if it is decided that there is no need to detain the individual in the house of the feqi, then he may be treated at home or visit the healer daily. In this case azīma and miḥaya are still the treatments of choice but another may be added. Azīma is performed over the bitter herb, wormwood, and then this is made into cigarettes which are smoked for three days.

If it is suspected that a spirit or devil is tormenting an individual, the root of alliley (?) is powdered and added to the miḥaya. As well as this, asafoetida resin (which smells strongly, and similarly to garlic) is powdered and put into hot water and then introduced into the nose via a dropper. The sufferer then blows his nose whereupon the sitan will leave, it is believed.

Kirro, (F.), Malāriya, (Ar.), Malaria or fever

The term kirro may mean a fever, or specifically, malaria, referring to the 'green' season, kirro (autumn) when the disease is most common. Some believe that it is actually the green season which causes the disease, although others suggest that it is due to eating the new foods of autumn. A small proportion of the rural community have learnt about the mosquito in connection with malaria, but the majority of the urban people are quite familiar with it.

Treatment may only involve the use of miḥaya, but a decoction of roots may be added. The seeds of the tamarind are believed to be efficacious when burnt and the smoke inhaled and also when soaked in water with sugar and half a seed of koko (?). This mixture is purgative and is followed by the fruits of haruq (Ar.) boiled in water with semin. This is taken once. Chapters of the Qur'ān with certain significant words or letters, repeated many times, are used in healing malaria. The feqi recites the sura and every time he repeats the word or letter, he ties a knot in a piece of string or thread. When all knots are tied, the sufferer wears the knotted thread around his or her arm, above the elbow.

This practitioner - a goni or 'feqi or feqis' - also has two other ways of treating malaria; he either writes the letters of the alphabet on the back of the sufferer, or writes Bismillah al-Rahman al-Rahim (In the name of God the Merciful, the Compassionate) - heard many times a day from Muslim lips - as a mirror image.<sup>1</sup>

Another verse from the Qur'an which is often used in times of trouble is the 'ayat al-kursi' (proclaiming the omnipotence, all-knowingness and mercifulness of God). This is used as miḥaya and when ḥazīma is performed.

Uwo or abo kisimba, (F.), Measles

Measles, like some other childhood diseases, is often referred to as a revered figure, euphemistically, as 'grandfather' or 'grandmother' - uwo or abo, respectively. Smallpox, now eradicated according to the World Health Organization, was known as abo affa (F.) and chickenpox as abo rugell (F.). Measles is still a fatal disease among young children, as was smallpox - not so much chickenpox, though probably its somewhat similar appearance caused people to assume it was a related menace - and the euphemistic use of titles is suggestive of placation in order to spare the lives of children.

The seeds of the tamarind form an important part of the treatment of measles, which is usually carried out by the mother of the sick child with or without advice from an older woman relative or neighbour. An infusion is made of the tamarind seeds alone or combined with millet,

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1. Such therapies, using certain letters of the alphabet believed to hold special powers and having a numbered value, as well as the 'secret names of God' have a magical significance throughout the world of Islam, among the unorthodox and in folk beliefs.

garlic and onion. This mixture is given to the child to drink. The compound mixture is also put into the eyes and ears daily for one week. The body is covered with sesame powder and after 40 days the child is washed in water in which tamarind seeds have been infusing. During the 40 days, no meat is given to the child but porridge is encouraged and the nutritious drink, durri, made from flour, sugar and water. Other liquids encouraged include the local beer.

During the sickness, the ashes of the fire are scattered both inside and outside the house by the mother.

#### Paediatric problems

A premature baby is placed in warmed water in which sunt pods have been infusing and bathed in order that this may 'thicken' the baby's skin. A baby which is not taking milk during the first week post partum, is trembling but not crying and whose abdomen has become a bluish-green colour is said to be suffering dogga (F.). The treatment for this sickness involves the use of the leaves of the Dead Sea apple, seven of which are warmed and arranged on the flat stone (dogga, F.) used for making the thin pancake-like bread. The baby is placed on the stone and some leaves are arranged as a cover. Each leaf is then thrown away separately and the baby is said to recover.

This sickness is believed to run in families, but children who suffer from it grow up normally and it leaves no ill effects.

Ratūba (Ar.) - rheumatism; aches and pains

Roughly similar to 'rheumatism' is the widely known 'ratuba' (Ar.) which literally means 'moisture', 'humidity' and 'dampness', referring to the conditions under which these generalized pains are felt.

Treatments are varied but usually are directed towards warming up the part affected or the body generally in order to combat the cold/damp causative factors. Sometimes the leaves of certain trees are warmed over the fire and then placed over the painful area 3-4 times a day. Leaves of the neem tree, Azadirachta indica (L.) are used for this purpose, also leaves of dofi and kowri (F.). Such dry poultices tend to be used by men while women favour hot smoke baths or fumigations, using the wood of certain trees, some of which have pleasant perfumes.

Fumigation (diakuru F.) is performed by first rubbing a perfumed oil (karkar, Ar.) over the body and then the sufferer sits over or near to the hole in the ground, where the woods are burning slowly over charcoals, wrapped in a thick blanket. The individual sits in the smoke until her/his sweating stops - about 30-40 minutes - and repeats the treatment 2-3 times a days for 3-4 days.

A cold poultice is prepared for painful areas by some healers by crushing the fruit of Balanites aegyptica (L.) and mixing it with wormwood (Artemisia absinthium L.). Other healers recite verses from the Qur'an and other books, perform Cazīma and give miḥaya while others still prefer the various methods of cupping to produce blisters which are related to the pain 'coming out', (counter-irritant effect?). Cupping, with cutting (small nicks with a razor blade) is often performed for back and neck pains.

One specific treatment for backache is to mix the powdered root of Capparis tomentosa (L.), (dulge, F.) with mihaya and a little oil and to rub this into the back of the sufferer. This is done three times a day for three days by the feqi who uses the treatment for his clients.

### Renal problems

Kidney pain, nundanggilowey, is apparently not uncommon in Darfur and is preferably treated with ostrich bile or stomach. The stomach may be dried and powdered and mixed with water to drink or the completed stomach contents may be taken by the sufferer. The bile of the bird is also said to dissolve the kidney stones and this is also drunk.

The seeds of khilla<sup>1</sup> (Ar.) are also said to be capable of dissolving the stones and these are taken as a decoction -  $\frac{1}{2}$  glass three times a day for 3-4 days. This then relieves the renal colic. Another mixture is made from cloves, dates, honey and tasurr (?) are powdered and mixed with sesame oil. One spoonful of this is taken each morning.

### Skin conditions

Probably the most common skin disease seen in Darfur is ringworm of the scalp of young children. This is called gubong (taenia capitis) and is left untreated except for the shaving of the head. It usually disappears at puberty. A more generalized form of lesion is also found, sometimes with lightened patches and powdery scaling. This is called um shabata, (Ar.), and is believed to be caused by the spider, ankabūt (Ar.) or nyamuro (F.).

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1. Egyptian pharmacists have produced tablets from these seeds which are very effective in treating small ureteric stones, which give ureteric colic ("renal" colic). Khilla dilates the ureter. (Personal communication with Dr Ghazī Atābani.)

The individual catches the disease if his shadow falls on the spider and the spider then beats the shadow. It is said to be a serious disease.

The lesions of um shabata are treated firstly by scratching them with a piece of broken pottery until they begin to bleed, when powdered fenugreek is applied topically. This is done for three days. The powdered leaves of quenquey (F.) or taddu (F.) may be also applied topically at the first treatment session.

Water from a pool at el-Hamiya near Nyertete, at the south-western edge of Jebel Marra is recommended for this skin disease. The water is said to bubble up and to smell of sulphur. Natron, from Jebel Marra, is also used in another treatment; it is mixed with butter and crushed roots of roollo and is then added to mihaya made from chapter 112 (surat al-ekhlas) and verse 256 of chapter 2 (ayat al-kursi) of the Qur'an. This preparation is applied topically and should heal in 1-8 weeks.

One healer also described another skin disease which, he said, appears similar to um shabata. This he called bab, (F.) or bahak, (Ar.). Bahak is thought to be a herpetic eruption. His treatment involved the use of sulphur brought from the Deriba Lakes in Jebel Marra. Another skin condition is barass, (Ar.) which is one of the names for leprosy; here it is used for 'loss of pigmentation' especially around the mouth, hands and feet.

'Worms in the skin' are probably the creeping eruptions caused by the larvae of certain nematodes unnatural to man, such as the hookworms of cats and dogs. The larvae of these worms move in the subepithelial layers of the skin and they can be extracted by making a

small incision over the site of the worm and placing crushed leaves of Balanites aegyptica on this. The worm will then come out of the skin.

Waja Butn (Ar./f.) - Stomach ache or pain

Symptoms which are covered by the term 'stomach ache' (waja butn) are those of abdominal pain - dull, colicky, or sharp and knife-like - a feeling of distention, flatulence and possibly with accompanying constipation, diarrhoea and vomiting. But, these last three mentioned states do themselves constitute separate sicknesses in the Fūr nosology and so would only be included under the main diagnosis if any of them were a relatively minor symptom in comparison with the major complaints.

The treatment of abdominal disturbances is often effected by the use of Cazīma which may be performed over the individual suffering the complaint, or over water which is then drunk, or over sand which is then lightly licked by the sufferer. The most favoured verse in the Qur'an for this purpose is that interpreted as 'The Throne' (ayat al-kursi, Qur'an 2:256). This verse is also used in making miḥaya, which may be warmed for those with the colicky pain.

Natural treatments of abdominal disturbances involve the use of particular parts of certain plants and trees and occasional animal material:

1. The bark of Ziziphus spina christi, L. (nabak Ar.) is soaked in cold water for some hours and the infusion drunk.
2. A decoction of guava leaves is drunk for colicky pain.
3. The fruits of Ziziphus spina christi and seeds of the baobab tree, Adansonia digitata, L. (tebeldi, Ar.F.), are crushed in either milk, water or yoghurt and eaten.

4. The seeds of mustard, (khardal, Ar.), are lightly infused in warm water and the liquid drunk.
5. Another, purgative, remedy is bitter aloes (subur), and a small amount of this added to the food directly, will produce the desired effect.
6. Powdered roots of trees constitute a renowned method of Darfurian treatment, and in this instance the root of the dumdum tree, (F.) is taken in water or milk.
7. If an enema is required, the core of the gourd which is used as a container or drinking vessel, (duya fuya, F.), is soaked in water and then the resulting liquid is administered via a horn.
8. A somewhat rare method of treatment now, due to the lack of wolves in the area, is to eat the fat of the wolf.

Small 'wounds' (jurah, Ar.) are believed to occur sometimes in the stomach due to the fact that 'here people eat without any system and at any time', according to one of the most well-known Nyala healers. The gathering together of food substances such as milk, tea, porridge (asida), the appetizer kawal (Ar.), meat sauce (mulah) and hot red pepper (shatṭa) in the stomach results in the production of more air (howa'), which then causes the wounds. These wounds are healed by writing a certain verse 777 times on a loaf of cornflour and by administering cornflour and milk or by writing the same words as miḥaya, adding corn powder and cooking gently, then eating the resulting mixture with milk.

Lo dis (F.), lamey (F.) dystentariya (Ar.) - diarrhoeal complaints

There is a tendency to all forms of diarrhoea, dysentaria in Darfur, and people tend to think of this as a sickness presenting in one of two forms - either with bloody stools or with increased frequency of motions - and in various states of severity. However, although they seem to be little-used, there are several Fūr terms for diarrhoea/dysentery.

Treatments for diarrhoeas are many and varied and no distinction is apparently made between bloody, mucoid and watery types when an individual is advised on therapy or is given the remedy which his healer has prescribed. The following are some examples:

1. The liquid resulting from soaking millet in water - as is done for making kisra - is drunk several times a day for two days and if this is not successful then
2. the white powder from the inside of the baobab fruit is soaked in water and the infusion drunk.
3. The 'seeds' contained in certain tuberous potato-like roots of gumorgo, (F.) and layūn, (F.) are crushed and mixed with milk and drunk with the addition of this particular healer's 'cure-all', seeds which he called koko, (F.).
4. If the previous remedy fails, this same healer then mixes maize cornflour with water, adds dates and tick beans (fūl musri, Ar.) and gives this to the sufferer.
5. Clarified butter is mixed with milk and honey over a low fire for a few minutes and this mixture is taken morning and evening for 1-2 days.

Children suffering from diarrhoea may well be given some form of treatment by their mother or another female relative, usually of the older generation, especially if they live in one of the more remote villages.

6. The roots of Solanun incanum (delga-delga, F.) - a member of the same genus as deadly nightshade and with small highly poisonous fruits resembling whitish tomatoes - are boiled in water with a little butter and given to the child to drink when cool. A quantity of the liquid is reserved by the mother to wash the child.
7. If it is believed that the child has a fissure in ano, which is itself thought to be a cause of diarrhoea, then the treatment involves the making of a paste of the crushed leaves and bark of Ziziphus spina christi (nabak, Ar.) and Acacia arabica, (L.) garad, (Ar.); saye futa, (F.) with the faeces of sheep. This is then applied around the anus to quench the blood loss.
8. If a small child has diarrhoea and vomiting, a number of roots may be collected by the mother and softened by chewing, after which they are transferred into the infant's mouth. (Fūr names of such roots are calok, nyarok, kumo, barafida.) It is however believed that if a mother has milk for this child, or for another, the treatment will not work. In this case the MZ may prepare the medicine.

9. Decoctions of roots of trees and plants (with very sour taste). One such medicine is brewed from the roots of tibir (a red bush found in the mountains) korsu, darro, diuw and tua - all Fūr names.
10. For gastro-enteritis, guava leaves are boiled for one hour, the resulting liquid is then cooled and a little oil is added to give a syrupy consistency. This is then drunk several times a day.
11. Seeds of Acacia arabica (garad) and millet are boiled together and the resulting liquid drunk (several times a day).

#### Osura (F.), Imsak (Ar.) - Constipation

Sometimes treated with similar remedies to those of abdominal pain as the symptoms may include abdominal pain. Other more specific treatments include:

1. Eating the fruit (lalob) or Balanites aegyptica (hijlij, Ar., dei, F.) each morning, especially for a chronic problem.
2. Drinking an infusion of the leaves of senna (Cassia actifolia, L.), and tamarind (Tamarindus indica, L; bari, F;), one or two doses is normally sufficient.
3. The seeds of Rue (Ruta graveolens, L; harmal, Ar.), are added to warm water and the liquid drunk.
4. Aloes (şubur, Ar.), are added, sparingly, to the food.
5. An enema of the rough gourd (ajūr kussay, F.) may be administered.

#### Distended stomach:

1. If a child is suffering with a distended stomach and is crying, then the abdomen is usually nicked over the entire surface with a razor blade. Following this, natron may be rubbed into the cuts or a root called rabda (F. or Ar. ?), and then the child is washed with warm water and the body rubbed with oil.
2. If an adult is suffering a similar complaint, then verses from the Qur'an are used, miḥaya is taken or cauterization may be used over the distended abdomen.

Furu (F.) Tapeworm or worms

The seeds of the pumpkin are mixed with akombo (?) seeds and boiled in water. The mixture is allowed to cool and is kept till the morning. Meanwhile the individual afflicted takes one seed of koko (F.) in the evening as a purgative/laxative. The following morning, the prepared mixture is taken on an empty stomach, again with one seed of koko, (or two if the person is large or fat). The result of such treatment is that the sufferer has an attack of diarrhoea and with this, all worms of any type are said to be expelled.

Jolgella, (F.) Vomiting

This is sometimes thought to be due to the length of the uvula in children, and is then dealt with by amputation of the offending tissue. The operation is carried out using an instrument resembling an old-fashioned button hook, often by blacksmith/basir. If the cause is not deemed to be as above, then a drink is given made of cloves and mint infused in water.

Tibb (Ar. and F.), Siḥr (Ar.) Sorcery

If it is believed that some other form of non-natural power is affecting an individual, such as sorcery, then a treatment employing an axe is also used, called 'axe medicine' (ṭibb al-fas). A special fire is made on which to heat the axe, out of ebony. The practitioner then grabs the axe out of the fire with his bare hand and plunges it into a previously prepared miḥaya of a certain verse written seven times. After the application of the axe to the parts previously mentioned above, the sufferer sips the miḥaya.

Leya, leyangoley, leyagilowey, (F.) Swellings

'Swelling' here encompasses such entities as cold abscesses, infected cysts and tumours which might occur at the side of the neck, the ankle, knee and testes. The treatment usually consists of the performance of Cazīma for 3, 5, or 7 days in the early morning. Alternatively, the dried roots of irig el-nar and irig el-hajar are ground to a fine powder, mixed with sesame oil and applied to the site of the swelling daily for one month, when the swelling will rupture, pus will exude and then healing will take place, according to the practitioner of this therapy.

For the swelling of the knee called sutiya, (Ar.), a chronic inflammatory condition (cf. 'housemaid's knee') one practitioner suggested the use of a syringe needle to allow the fluid to come out, while others kept to the more traditional method of treatment - powdered peppergrass in either hot or cold water in which a cotton dressing is soaked, to make a compress. This treatment is carried out daily until the swelling goes down.

Abscesses are treated either by Cazīma until the pus begins to discharge, when bathing with a decoction of certain roots including sakaran (Datura stramonium, L.) is begun, or the site is incised with a razor blade so that the pus may escape.

Teething problems of children

When babies are teething, mothers rub the gums with a variety of substances, all usually obtainable around the home or at least in the market. Charcoal and natron, charcoal and lemon or ashes from the fire are all well-known remedies. If the child also has a fever and diarrhoea before the teeth

come through, the mother may take her child to an old woman who specializes in removing the causative 'germs' from the gums. The most troublesome places indicated where this is done, were the positions for the budding eyeteeth, which were presumably removed by the healer with her needle-like instrument. After removal of the 'germs' the diarrhoea stops and the fever abates.

Kagigilowey, (F.) Toothache

The root of deedan (F.) is put into the cavity in order to pull out the worms causing the pain, or cazīma is performed together with recitation of verses from the Qur'ān.

Venereal diseases

Both gonorrhoea and syphilis are well-known in Darfur and most healers have their own method of treatment, although the majority of practitioners say that they are consulted by few people since the advent of Benzathine and Procaine penicillin injections.

Assar or bejel, (F.) Gonorrhoea, used to be treated with a mixture of powdered roots - kurtudagal, (F.), kurnoy, (F.), and saluo (F.) - made into a solution with water and administered as an enema via a horn. This can be given to both men and women. Another enema is prepared from the core of two types of gourd, (duya fuya and ajur kussay) irig el-nār, senna, wormwood, sunt seeds, oil of sesame and two other roots, komonga (F.) and foursa (F.). This is said to be as good as penicillin, and needs only one administration usually.

Jukela, (F.) Syphilis, may be treated with a medicine prepared from the roots of tiko (F.), yasur (Ar.) and bashum (Ar.), which are powdered and boiled in water. This is taken for seven days. An alternative treatment involves the use of miḥaya and Cazīma in conjunction with the words aḥraqa and ḥariq, to 'burn' out the disease.

### Wounds

An acute or recent wound, dia, (F.) is treated with a decoction of the bark of kurul, (F.) Acacia albida, (L.) and then wrapped in cotton. If no fire is available to boil the water, then as a first-aid measure, the healer may chew the bark and spit the 'juice' over the wound. The powdered faeces of rabbit may also be sprinkled on the site.

For a stab wound, the root of sorghum is scraped and the powder thus obtained is applied to the site.

Chronic wounds are washed with hot water and then the liquid obtained from boiling tamarind leaves is used as a second solution. A whole leaf of damarge, (F.) Bauhinia reticulata (L.) is used to cover the wound, and is changed daily for 4-5 days. The duration of treatment varies with the extent of the wound.

Mandule (F.), refers to serious chronic wounds, probably of osteomyelitis, but the term could also refer to gangrenous wounds. They say 'we do not amputate, we have another method' of treatment. The sufferer of such a wound is taken to a certain pool where it is known that a particular type of insect is to be found, just below the surface of the water. One of these insects, called ungululu, (F.) is applied to the wound site and allowed to suck the blood until it dies; it is then

crushed over the wound. This treatment is said to be painful and should not need to be repeated. If it does not succeed, however, that using the tamarind leaves described above, is performed. Mihaya and some roots are also used to treat such wounds, as well as the bark of demarge to clean the wound, which should then be left uncovered.

A haematoma resulting from trauma, without a fracture, may be cut and cupped with a horn to remove the 'dead blood'. Any injury will cause concern among people and they will spit over it (similarly to Cazīma but without the verse from the Qur'an). This is done particularly by women.

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now } - Journal of the Royal Anthropological Institute  
MAN }

Soc. Sci. Med. - Social Science and Medicine

SMJ - Sudan Medical Journal

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