

PHARMACEUTICAL ANTHROPOLOGY: PERSPECTIVES FOR
RESEARCH AND APPLICATION

This collection of papers offers an anthropological perspective on pharmaceuticals in developing countries. It assembles contributions that describe the context of medicines and stress the cultural relativity of their transaction and meaning. We hope that the volume will be seen as a beginning – a first step in the development of a new and exciting research field in medical anthropology. Therefore, it seems appropriate to end the book with a preliminary stocktaking and some suggestions for future research in pharmaceutical anthropology. The final section of this chapter will discuss the possibilities of using this research for improving conditions of drug consumption in developing countries.

THE LATE APPEARANCE OF PHARMACEUTICAL ANTHROPOLOGY

Until very recently, most anthropologists failed to 'de-naturalize' their own cultural conventions and products. They regarded familiar Western phenomena in the field as 'natural' and unfit for anthropological scrutiny. Only non-Western customs and artifacts drew their attention as possible study objects. Only the exotic was seen as 'cultural'; the familiar things were just 'natural'.

It should be emphasized, however, that some anthropologists did not take their own culture for granted. They attempted to question certain traditions at home by showing examples of other traditions that proved successful solutions to the problems of life. Or they wanted to gain a deeper understanding of their own way of life by confronting it with alternatives in other cultures. This applies for example to early anthropologists such as Mead and Benedict, and also to some extent to people as different as Lévi-Strauss, Diamond and Harris. The wish to know oneself by knowing other people was a primal inspiration to anthropology, as expressed in the title of Kluckhohn's (1949) book *Mirror for Man*. The net result, however, was that even anthropologists who did not take their own culture for granted, took little interest in Western phenomena abroad. They were looking for an alternative way of life and an alternative way of thinking: *the other culture*.

This also explains why Western biomedicine was seldom studied by anthropologist working outside their own culture. Until about 1975, probably even later, ethnographic work by medical anthropologists was almost entirely devoted to 'traditional' medical phenomena. Early reviews of medical anthropological research (Caudill 1953; Polgar 1962; Scotch 1963; Fabrega 1971; Colson and Selby 1974) underscore this unambiguously. At first these phe-

nomena were studied within the framework of religion (cf. Whyte n.d.), belief system or politics. The most conspicuous examples are 'witchcraft', 'sorcery', and 'magic'. Most authors did not even regard these as 'medical' and the term 'medical anthropology' was not coined until much later. When medical anthropology as a separate field of study came into existence research focused on 'indigenous' beliefs and practices. Around that time the term 'ethnomedicine' was coined referring exclusively to the study of non-Western medicine. It is significant that the aspect of being 'ethnic' (cultural) was not extended to Western medicine. This myopia continued when the distinction between 'disease' and 'illness' was introduced. 'Disease', the Western scientific definition of a health problem, was exempted from cultural questions; 'illness', on the other hand, tended 'to be viewed as a cultural category and as a set of culturally related events' (Fabrega 1971: 167).

I am not saying that the Western-type public health programs in the colonies and – later on – 'developing countries' entirely escaped the attention of social scientists. I do however contend that Western medicine in the non-Western world was not studied as a cultural phenomenon. Applied anthropologists who carried out research for the benefit of public health programs did not examine these programs but studied indigenous ideas and practices which were seen as 'barriers' to the acceptance of Western medicine (cf. Paul 1955; Foster 1976).

Only recently have medical anthropologists turned towards biomedicine as an object for cultural research, both in non-Western and Western societies. Hahn and Kleinman (1983: 305) have called the exploration of biomedicine 'a new frontier in medical anthropology'. Studies of biomedicine in a non-Western context often deal with themes such as medical pluralism, therapy choice, and the cultural hegemony of biomedicine. It is significant that, in spite of the interest in biomedicine as a cultural tradition open to anthropological research, anthropologists have hardly begun to look at 'the hard core' of biomedicine: pharmaceuticals. Until very recently the delusion that biomedicine was 'beyond culture' still hovered around its therapeutic substances. Now at last anthropologists are beginning to direct their unsettling questions at what used to be entirely taken for granted, their medicines.

FIVE THEMES IN PHARMACEUTICAL ANTHROPOLOGY

The contributions to this volume have been arranged around two broad themes, transaction and meaning. The former comprises studies that stress the more tangible events concerning drugs and view them in their social, economic and political context. Contributions assembled under the latter theme focus on more hidden aspects of pharmaceuticals: their symbolic value, the way they are perceived by those involved in their transaction. The distinction transaction versus meaning is artificial; both move together

throughout the 'life' of a drug. Together they constitute, as it were, the outside and the inside of the cultural context.

Here I propose a somewhat different division of research themes. Following, more or less, the 'biography' of a drug we could perhaps distinguish five themes that lend themselves to anthropological research. These do not refer to well-defined and separate fields of study, but rather indicate prominent themes in pharmaceutical anthropology that are closely interrelated and overlap one another considerably. The five themes to be discussed here are: (1) production and marketing; (2) prescription; (3) distribution; (4) use; and (5) efficacy.

Production and marketing

The most busily researched theme is without doubt the production and marketing of Western pharmaceuticals, but little of this research has been done from an anthropological perspective. Most of it is economic. Numerous studies have tried to provide an 'anatomy' of the pharmaceutical industry showing how its transnational character allows better control of the market, transfer pricing, dumping and other practices that enhance profits. Of special interest are the patent system, the transfer of technology, biased information on drug use, and promotional activities by sales representatives.²

The overriding – and rather obvious – conclusion is that pharmaceutical production has a commercial character that is concealed behind images of scientific research and medical concern. But investigating the structure and practice of the pharmaceutical industry does not always provide the necessary context for making its existence and successes intelligible. Several questions remain unanswered: how is the industry able to continue certain harmful practices; why do the governments of importing or exporting countries not put a stop to these practices; how does the medical system at large relate to the pharmaceutical industry; how do legal systems and insurance programs support the commercial interests of the industry; and, how does the promotion and supply of medicines 'work' in concrete situations. Economic analysis can be revealing (for example the finding that the term 'Research & Development' covers on the average about twice as many expenses for advertising as for research, but usually it provides only a fragmentary picture of this complex industry).

It is precisely this lack of information about the context in which drugs are manufactured and sold to developing countries that allows the continuation of dubious marketing practices. Companies (and others who share in their profits) are not interested in such information and may, consciously or not, suppress the scanty, but rapidly growing, social research about pharmaceutical distribution in developing countries. At the same time, however, critics of existing drug policies have insufficient anthropological field evidence at their disposal to be able to persuade policy makers to introduce drastic changes.

The activities of sales representatives are a case in point. There is increasing evidence that 'sales reps' are particularly numerous and active in a number of developing countries where they exert considerable influence on doctor's prescribing patterns. Drug representatives provide doctors with drug information and free samples. They often reward doctors for prescribing particular drugs. Yudkin (1980: 459) reports that in 1977 there was one representative for every four doctors in Tanzania as compared with only one for every twenty in Britain.

Drug representatives visit not only physicians but also pharmacists and traditional practitioners, since these 'prescribe' pharmaceuticals as well. Boeken et al. (1981: 16) write that reps in the Philippines visit pharmacies where they can check doctors' prescriptions to find out what drugs they prescribe. Some case material on reps is presented by Melrose (1982: 63), Boeken et al. (1981: 122), Nichter (1981, 1983: 962) and Giovanni (1980). But on the whole little is known about them with certainty and anthropological research on them will be difficult as this is likely to interfere with their commercial activities.

The international pharmaceutical industry receives considerable support from a world-wide ideology concerning the importance of development and a firm belief in the blessings of technological progress, capital investment and employment. These allow drug companies to justify their role in the developing world as assisting in development and technological advancement. These concerns also allow companies to disregard their failures and their critics and to advance unsupported claims which fit with the ideology of development in both the developed and 'underdeveloped' world. It is striking that with regard to pharmaceuticals this development ideology is strongest where its failure is most conspicuous: in the Third World.

The culture of pharmaceutical production and marketing is amenable to anthropological research. In the description above I may have given the impression that the pharmaceutical industry is an evil institution fully conscious of its harmful practices. I am sure it is not. Mercantilism is a cultural phenomenon with its own ideas and institutionalized practices. In every culture people have their blind eyes and techniques to justify their ways of life and to prove their superiority over other cultures. The culture of pharmaceutical production is usually little understood by its critics. It seems only logical that anthropologists also apply their call for an 'emic approach' to research on the pharmaceutical industry. Why not grasp 'the native's point of view' when it comes to the capitalist entrepreneur?

It becomes clear from this sketch that research into other themes, such as prescription, distribution and consumption of medicines partially provides the context of drug production and marketing. I am referring both to the social conditions of drug supply and to the more hidden assumptions and intentions of producers and suppliers, the visible and invisible context, the transaction and meaning of medicines.

In this volume only scanty attention has been devoted to the context of production and marketing. Afdhal and Welsch discuss the ambiguous cultural convergence of the production of Indonesian *jamu* and Western pharmaceuticals. Wolffers describes the activities of a self-styled drug manufacturer in Sri Lanka and the marketing practices of drug representatives in two villages. Ferguson too reports about drug representatives and explains that the pharmaceutical self-help sector in El Salvador has emerged under the commercial pressure of the international industry.

On the ground research about the marketing of medicines is perhaps the most conspicuous gap in studies analysing the role of pharmaceutical firms in developing countries.

Prescription

There would be good reasons to place drug prescription by medical doctors and paramedics in the same category as the distribution of drugs by pharmacists and vendors, but it is presented here as a separate theme because doctors and paramedics are usually thought of as a distinct category.

Studies on the role of doctors in the prescription and distribution of drugs in developing countries have mainly been carried out by medical and pharmacological researchers. They have produced information on a number of the more hidden aspects of drug prescription, some of which are clearly disturbing. As we shall see momentarily, the purchase of prescription drugs without a doctor's prescription is a major problem in many developing countries. This does not imply, however, that where prescriptions *are* used, drug distribution functions well. I shall present four issues from the literature that cast serious doubt on the appropriateness of much prescribing and plead for a socio-cultural analysis. Some of these issues obtain also in Western societies.

One of the most interesting aspects of drug prescription is its symbolic meaning. Smith (1980) identified 17 'latent functions' of prescribing, some of which are communicative and symbolic. The prescription entails a confirmation and tangible proof of the patient's illness that allows him to assume the social role of 'being sick'. But at the same time the prescription also confirms the doctor's social role. Melville and Johnson (1982: 180-1) summarize Smith's views as follows:

Prescribing has clear advantages for doctors and they cooperate with patients to produce this mutually desired outcome. It is a display of the doctor's power and privilege . . . In exchange for the acknowledgement of this position of power and trustworthiness, he gives a token, a symbol of his concern: the prescription.

The fact that the prescription (and the medicine!) and not something else (for example the conversation) has become the focus of medical symbolism is no coincidence. Prescribing reflects the curative thrust of Western medicine. Moreover, as Melville and Johnson (1982: 181) remark, 'it is easy to prescribe, it requires less thought³ and effort than a carefully explained sugges-

tion about life style change'. And finally, there are clear time-saving (read: financial) advantages to prescribing. It is more quickly finished than a discussion of life problems and it is a subtle but effective device to announce the end of the consultation and send the patient away to make room for the next customer. But because prescribing is such a powerful symbol it is also likely to be overused; overprescription seems an obvious consequence.

A second point raised by some authors is that physicians are not always well informed about the most appropriate drugs (cf. Speight 1975). This is partly due to the fact that many physicians in the Third World rely on information materials provided by the industry, and these may be biased to suit the industry's interests.⁴ Senturias et al. (1984), who conducted a preliminary survey among 135 physicians in Manila, report frequent prescription of doubtful drugs for four common ailments. Similar observations were made by Group DCP (1984) and Hardon (1987). Silverman et al. (1982: 91) quote seven drug experts in the Third World who 'label much of the prescribing in their countries as irrational'. They mention several types of 'irrational prescribing',⁵ one of which is the preference for injections. This preference has been widely reported, also in medical journals. Greenhalgh (1987) provides quantitative data on injections in India and Kleinman (1980: 287-8) in his Taiwan study suggests that this professional preference is based on a mix of science, psychology and commerce:

As odd as it sounds, of the 300 cases we observed in the clinics (private and public) of Western-style practitioners, fewer than one-fourth failed to receive injections of one sort or another. There is a strong financial motive here . . . If a practitioner gives the patient medicine to take orally, he gets paid, but less than if he gives the patient an injection. Furthermore, giving an injection is giving the patient the message that you are offering him the best treatment you possess. Consequently, almost all medicinal agents that can be given by injections are so administered . . . Many Western style doctors told me this was dangerous, quite unnecessary practice, but one they could not relinquish given the 'realities' of clinical care in Taiwan. They feared the loss of income and patients.

This practice shows that the transmission of medical concepts not only goes from professional to layperson, a type of medicalization which De Swaan (1983: 216) calls 'proto-professionalisation', but also in the opposite direction: doctors comply with their patients' expectations and ideas. This remarkable phenomenon has been little noticed.⁶ The view that drugs are an essential element in any treatment is common not only among large groups of patients,⁷ but also among doctors. It may be enlightening to study this belief as a symptom of doctor's compliance.

The opposite is also discussed in the literature: the lack of concern physicians sometimes have for the conditions in which their patients live. This leads to another kind of 'irrational prescribing', i.e. prescribing drugs which people cannot buy. As a result patients may select just some of the prescribed drugs that they can pay for and leave the others. Muller (1982: 45-61) rightly points

out that even though such drugs are 'effective' they are not 'efficient'. For economic reasons people are not able to use them. Some authors who refer to the socio-psychological gap between prescribing doctors and poor patients are Melrose 1982, Senturias et al. 1984, and Shatrughna n.d.⁸

These observations are, of course, related to the fact that physicians themselves have commercial interests in prescribing. This is the case if they sell the medicines they prescribe or if they have connections with pharmaceutical distributors. What I have called 'irrational prescribing' above may be irrational according to medical standards and also from the patients' point of view, but 'rational' in other senses because it serves the physician's economic interests. Kleinman (1980: 287) reports that most doctors in Taiwan sell their own medicines in order to receive the maximum profit from their prescriptions. In such situations, overprescribing obviously yields considerable benefits. Similarly, Melrose (1982: 86-89) gives striking examples of overprescribing in North Yemen, Burkina Faso and Bangladesh, which she refers to as 'sledge-hammer therapy'. Overprescribing seems to occur worldwide, but there can be little doubt that it is least controlled in developing countries.

It should be noted, that overprescription for economic reasons occurs not only in commercial health services. 'Non-profit', usually church-related, institutions often make considerable profits by selling medicines. Hospitals and health centers with little or no government subsidy have often found that the easiest way for them to obtain an income lies in the sale of drugs. Overprescription of course is likely to ensue in such a situation (cf. Barnett et al. 1980: 495).

A last problem to be mentioned is that patients tend to imitate prescriptions in self-medication. Overprescribing or otherwise irrational prescribing by doctors may thus lead to dubious methods of self-medication. Hardon (1987) reports this for the Philippines, Group DCP (1984) for Brazil, and Greenhalgh (1987) for India.

Distribution

Drug distribution tends to be extremely complex in most developing countries. Comparison with distribution in the Western world is misleading. The situation is often paradoxically marked by both shortage and abundance. The shortage concerns essential drugs, cheap and useful; the abundance non-essential drugs, usually expensive, often superfluous and sometimes harmful. Moreover, prescription drugs tend to be readily available without a prescription, even in countries that require a prescription for their purchase.

The most typical situation is that legal and illegal distribution are intertwined. Ferguson (this volume) speaks of a 'two-tier delivery system', but the 'illegal' practice is usually socially accepted and 'normal'. Paralleling this,

one often finds an articulation between public and private distribution. In Cameroon (Van der Geest, this volume), the private sale of drugs tends to be made possible by the failure of free public distribution, and, inversely, the private sale renders distribution in the public sector inefficient. There is strong evidence that the two-tier system described for El Salvador and Cameroon occurs widely in the Third World.

Anthropological research should describe and analyze the linkages between the various kinds of drug distribution. The informal, often illegal, character of these linkages also requires an informal research approach. Thus, the anthropological tradition of participant observation and unstructured interviewing seems particularly apt for studying this topic.

Research could also focus on one or more of the various types of distributors. The following have been mentioned by a number of authors: pharmacists, health care workers such as doctors, nurses and non-medical personnel, traditional healers, and unqualified drug vendors.

The role of pharmacists in developing countries is increasingly under study, usually from a critical perspective. Researchers have often found that pharmacists routinely give medical advice and prescribe drugs.⁹ They also find that much of the actual work in pharmacies is carried out by unqualified personnel.¹⁰ To understand people's visits to pharmacies and their use of pharmaceuticals recommended by the pharmacy staffs, there is a great need for more research into what drugs are being suggested and what information passes from pharmacists (or their assistants) to clients and also into how patients are using these medicines as a result of such consultations. The chapters in this volume by Ferguson, Kloos et al. and Logan provide examples of what can be achieved by examining the role of pharmacists in local contexts.

Personnel in health centers and hospitals are important drug distributors. Their formal role as prescribers is discussed above, but it is clear that they also play a role as informal distributors of drugs. The two-tier delivery system often allows them to function as private practitioners alongside their official tasks in health care institutions. This practice seems extremely wide-spread; it involves doctors as well as nurses and non-medical workers.¹¹ Their access to pharmaceuticals and other necessities enables them to provide medical services in their homes (or private clinics). Often patients may look in vain for these services in the public institutions. This is a delicate topic for social research, since these practices are likely to be illegal and may be regarded as criminal if they involve theft or medical harm to patients. But in some instances 'moonlighting' practices of this kind are highly appreciated by patients and constitute the best services available. For obvious reasons the informal practices of formal health personnel (cf. Van der Geest 1982b) have as yet hardly been studied and anthropologists should pursue this topic with greater vigor.

Another pattern that is beginning to receive considerable attention is the

involvement of indigenous practitioners in the distribution of modern drugs. These may be practitioners of all kinds, from an Indian Ayurvedic doctor (Burghart, this volume) to a Mexican *h'iloetik* (Fabrega and Silver 1973).¹² These practices seem to be a logical outgrowth of what has come to be called medical pluralism, though they are also encouraged by attractive commercial benefits for the practitioners. As Landy (1978) has suggested, anthropologists should study the activities and position of these traditional practitioners within the context of pluralistic and rapidly changing health care situations. Unfortunately, most studies have tended to study indigenous medical practices in isolation from and in contrast to Western medicine. This has often resulted in a biased picture, either romanticizing or deprecating indigenous medicine. The contributions of Wolffers and Burghart to this volume provide a more realistic approach to the sorts of development actually occurring among 'traditional healers'.

A fourth category consists of drug vendors without any formal pharmaceutical training. Their widespread occurrence in developing countries seems to be largely due to inefficiencies in the formal drug delivery system, but there can be little doubt that they are also encouraged by the great demand for drugs among the population. Drug vendors fill in gaps in the formal health care system, particularly when health services are unevenly spread throughout the country resulting in shortages of drugs, especially in rural areas. While private pharmacists are usually found only in urban centers, drug vendors tend to spread very widely, even in rural areas. Despite what one might expect, there are some remarkable examples of their efficiency.¹³ It is therefore no wonder that their services are eagerly sought and their practices, though illegal, are often tolerated. Surprisingly, the illegal sale of drugs even occurs where drugs are readily available through legal avenues, sometimes where drugs are free of charge. Drug vendors are not restricted to the remote villages, but are found in the markets and shops of major towns that have hospitals and pharmacies. They can even be found on the doorsteps of hospitals and health centers. The most likely reason that they can conduct an active trade in such situations is that they are more approachable than physicians or nurses. Some authors (e.g. Alland 1979; Bleek 1979; Gonzalez 1966) have suggested that sick people in their area of research were really after Western pharmaceuticals and regarded the Western trained health worker as an 'unnecessary adjunct' to the pharmaceuticals. Buying drugs directly from a shop or vendor, saved them much time, inconvenience and embarrassment.¹⁴

Drug vendors constitute an enormously variform category. Some are merely merchants, while others add some medical practice to their trade, for example giving injections; some specialize in pharmaceuticals and tend to have a substantial assortment of drugs, while others sell only a few of the most needed together with other essentials for daily life such as bread, rice, cigarettes, sardines and batteries; some have a fixed place for their trade, a

shop or a booth, others are mobile and travel from village to village.

Although it is generally recognized that illegal drug vendors are common in the Third World, research about them is virtually non-existent. A host of studies can be cited which briefly mention the drug vendor,¹⁵ but I know only four studies that more or less focus on them. Cunningham (1970) describes the Thai 'injection doctor' as a mediator between popular and professional medicine and provides case material on two injection doctors. One of them had first worked as a 'doctor's assistant' in a government health center. Such links are often reported¹⁶ and it seems probable that some informal drug providers started their careers while attached to a health institution, for example, as a lowly ranked nurse, a laboratory assistant, a cleaner or a porter. Two other studies by Kloos (1974) and Nordberg (1974) describe drug vendors in Ethiopia. Kloos as a geographer is mainly interested in spatial and economic aspects of their trade. Nordberg studies the types of pharmaceuticals sold in 25 rural drug shops, the number of clients and the amount they spent. Fassin (1985), who did research on markets in the capital of Senegal, explains why the Senegalese society and the authorities tolerate the illicit trade in medicines. One of his answers is that the society cannot do without this informal distribution as the state's provisions are insufficient. Moreover, the clandestine business produces attractive fringe benefits for various groups of people among whom the police. Fassin also has interesting things to say about the careers and 'training' of medicine vendors.

Little is known about the social context in which drug vendors operate and, as far as I am aware, there has hardly been any participant observation in their shops (however, my investigation in South Cameroon, reported in this volume, and Fassin's work in Senegal suggest that such research is quite feasible). Even less is known about drug vendors' beliefs and medical knowledge or the financial aspects of their trade.¹⁷ As a result, one finds contradictory statements about drug vendors in the literature; some authors regard them as extremely dangerous while others have suggested that they be given some training and included in the formal health care system. It is high time we had a clearer and more complete picture of this recent but very common provider of popular health care. Two studies in this volume try to fill this gap: Kloos et al. and Van der Geest.

Use of medicines

In Western society the use of medicines has been mainly studied from a medico-centered perspective, as 'compliance' and 'non-compliance'. Only recently is it beginning to be studied through a patient-centered approach, as 'self-regulation' (see for example Conrad 1985). In non-Western societies it has never been very useful to regard patients' use or non-use of drugs as non-compliance, although the majority of health workers in these countries probably continue to do so. The role of doctor's prescription has been marginal in most developing countries (despite the importance health care

administrators have placed on the role of physicians in the health care systems) and self-medication has probably been the predominant feature of pharmaceutical use in all non-Western societies. Self-medication in such societies traditionally consisted largely of taking home-made, usually herbal, medications. This practice has, however, increasingly been complemented or replaced by the use of industrially manufactured pharmaceuticals, either Western products or drugs from non-Western manufacturers such as Ayurveda, Unani, Jamu and the like.

Although self-medication is probably the dominant therapy even in Western societies (often accounting for 75 percent or more of all treatments), it has received little research attention. Researchers have characteristically considered self-medication trivial and uninteresting. Moreover, since self-medication lies outside the domain of formal health care services it was easy to overlook it. Informants tend to take self-medication as a matter of course and may forget instances of self-treatment in their own lives. Here again, the use of patent medicines and self-administered drugs are so much a part of the researcher's own life, that it often goes unnoticed in the study community. Only in the past few years has the interest in self-medication grown.¹⁸ This is probably related to the attention given to primary health care and the increasing recognition that most health care occurs in the home. Self-medication is coping with health problems at the most primary level. It should be an extremely important theme in pharmaceutical anthropology.

To understand patients' use of drugs the anthropological approach of contextualization and de-naturalization looks particularly fruitful. 'Contextualization' is partly – but *only* partly – provided by analyzing the several research themes discussed above: the role of the industry, the distribution and marketing system, and prescription by doctors or other individuals. But the context of drug use is not limited to the pharmaceutical themes alone. It also includes wider socio-economic data, kinship, religion, medical pluralism and the integration of new ideas or practices with more traditional ones. It is important that patients' drug use not be approached as a process that exclusively concerns the patient (i.e. a strictly patient-centered approach) or is merely a social process of doctor-patient interaction (what is typically a practitioner-centered approach). As Janzen (1978) and a number of others have shown, the family or domestic unit and the community are often centrally involved in making health decisions for the patient as a 'therapy management group'. Indeed, in many cases the family's input may be as important or more significant than that of a doctor or patient.¹⁹

The use of pharmaceuticals must be understood within the total health seeking process of the individual as part of a social group and a wider community. It is impossible to draw the boundaries of this *relevant* context a priori, and thus it is the task of the anthropologist to assess what aspects of the broader context are relevant, based on his empirical knowledge of the community under study.

There is one context feature which

of drug consumption: the social control which is felt most acutely during periods of sickness. Western pharmaceuticals can be bought privately (with money that can be earned individually) and they allow a sick person to bypass those who otherwise might have used his sickness to exert social pressure upon him. Whyte (this volume) sees medicines as a 'liberating' force in contrast with ritual and relational therapies that confirm the patient's place in relation to others. It seems likely, therefore, that where self-medication with Western medicines increases, the importance of the family-based 'therapy management group' will diminish.

The common observation that people often prefer to purchase medicines without consulting a physician (e.g. Alland 1970; Ferguson this volume) should be seen in that light; doctors are no less agents of social control than lineage elders. The urge to bypass others will be the greatest when the sickness is embarrassing and threatens to impair a person's reputation, for example in the case of venereal disease (see Kloos et al. this volume) or induced abortion. Indeed the increase of venereal disease in Africa may well have fueled the demand for Western drugs (oral communication S. Whyte), and so may the growing practice of clandestine abortion.

'De-naturalization' also depends partly on the themes discussed above, but even more so on the theme yet to be considered: the concept of drug efficacy. De-naturalization of pharmaceuticals can only be achieved by stepping outside the context of pharmaceutical use in the study community, but it also requires that the researcher step outside his own cultural context. Taking medicines is not a *natural act per se*; it appears so to the social actors concerned (and often to the researcher) because of their culturally imposed premises. No matter how natural drug taking may initially seem it is always supported by arbitrary cultural conventions. Ideas about when to take drugs and what kinds of drugs are the correct ones or the most effective ones are inevitably part of an individual's cultural heritage (it should be noted that this is as true of the physician, whose cultural heritage includes his or her medical training, as of the rural patient).

Moreover, underlying these ideas about medicine use are subconscious symbolizations that can be elucidated only with great care. One of the most important of these symbolizations is that medicine use affirms and legitimizes the patient as being sick. Clearly, the symbolic aspects of pharmaceutical use will differ from culture to culture and from situation to situation, but this merely demonstrates the cultural arbitrariness of these underlying concepts about medicines. It is thus the anthropologist's task to examine these concepts and symbolizations in order to 'de-naturalize' patients' drug use. This brings us to people's concepts of pharmaceuticals, perhaps the most important part of the context of medicine use.

In spite of the keen interest in the cognitive and symbolic aspects of culture that has long been present in anthropology (and is very much in vogue in medical anthropology), people's concepts and ideas about pharmaceuticals

have remained little studied. Indigenous ideas, classifications and medical beliefs became popular topics for research, but in most cases these ideas were regarded as almost static, intra-cultural phenomena. 'Ethnomedicine' in particular, which became a dominant theme in medical anthropology, was defined as referring to beliefs and practices that were products of (almost exclusively) indigenous cultural development (Hughes 1978: 151), thus contrasting these beliefs with Western medical thought. In most cases this research has concentrated on constructing static and overly systematized descriptions of the traditional medical system often using the ethnographic present (and thus ignoring the numerous changes in local medical practices that have come with colonization). Moreover, despite the assertion that local people do not present their medical ideas and beliefs in such a systematic fashion, the majority of such studies strive to describe such medical beliefs as a consistent and coherent belief system. Indeed, it can be argued that the oversystematization of traditional beliefs has in itself created an artificial problem for analysis (cf. Unschuld, this volume). When traditional medical beliefs are depicted as unchanging, it becomes difficult to understand why so many Third World communities readily seek imported pharmaceuticals.

Only gradually has the study of indigenous medical beliefs begun to shed its static character and some anthropologists have begun to examine how foreign ideas and practices are conceptualized by users to make them fit existing cultural concepts. Welsch (1983: 35), for example, argues that anthropologists are too quick to describe local beliefs as *conflicting* with Western medical thinking, and goes on to show that among the Ningerum of Papua New Guinea Western medicine is instead 'highly integrated into the local setting' (1983: 36). Judging from the wide-spread popularity of Western medicines, it is indeed plausible that the cultural 'integration' or 'reinterpretation' of Western medical thought and practice has been taking place far more frequently than is reported by anthropologists.²⁰

Some examples of such a 'reinterpretation' may be briefly mentioned here. Alland (1979) shows that the Abron in Ivory Coast interpret the activities of Western-trained medical doctors and nurses by classing them with indigenous analogues. Lewis (1981) describes how people in Papua New Guinea use Western disease terminology for an indigenous classification system. Van Luijk (1981: 53) gives the example of a Kamba herbalist in Kenya who uses Western teaching material about the life cycle of the schistosoma fluke in his practice, explaining every sickness as coming from the gall bladder.²¹ Examples of research into the 'reinterpretation' of Western pharmaceuticals in a non-Western culture are particularly hard to find. One outstanding example, however, is M. Logan's (1973) study of the hot-cold classification of pharmaceuticals by Guatemalan peasants. It is significant that for a long period of time Logan's research did not inspire colleagues working in other cultures. Nichter (1980) was one of the first to attempt a similar approach in southern India, but did not refer to Logan's example. The same applies to Kleinman's

(1980) voluminous study of medicine in Taiwan, to Mitchell's (1983) publication on pharmaceutical concepts in Jamaica and to an article by Herxheimer and Stimson (1983) which scrutinized the literature about lay views on medicine use. It seems clear that for more than ten years medical anthropologists did not perceive the reinterpretation of pharmaceuticals as a relevant research topic.

Bledsoe and Goubaud (this volume) have rediscovered Logan's study.²² Their discussion of Mende reinterpretation of Western medicines in Sierra Leone deals with people's perception of qualities such as form, color and taste. Medications for three common ailments are studied. At the same time the authors emphasize that medications reinterpreted by the Mende are sometimes of dubious benefit or even dangerous from a Western pharmacological point of view, thus reflecting at the same time Western medical concerns. Another example of reinterpretation of Western pharmaceuticals is provided by Del Vecchio Good (1980) who reports that women in Iran translate the working and side-effects of the contraceptive pill into their own cultural concepts of physiology. The most drastic case of reinterpretation I know of is reported by Burghart (this volume): an Ayurvedic healer asserts that injectable penicillin is an Ayurvedic medicine. Confiscation is the ultimate form of reinterpretation.

I expect that pharmaceutical concepts will be an active research theme in a few years time. Both the growing interest in pharmaceuticals, and the popularity of a cognitive/symbolic perspective point in this direction. There are, however, two caveats that should be noted.

In the first place we should beware of a too cultural view of indigenous culture. There is a danger that, in their zeal to 'find' cultural concepts, anthropologists will construct them.²³ Anthropologists sometimes expect clear-cut, articulate, ideas where their informants may be inarticulate and vague. They are trained not to be satisfied with the answer 'I don't know', but to press further until the informant tells what he 'knows'. Last (1981) has drawn attention to the possibility that the informant really does not know and that the most important cultural 'concept' may be the absence of clear concepts: simply 'not knowing'. Last writes that in Northern Nigeria many Hausa medical terms have no standard meaning (1981: 390). He suggests that it would perhaps be more appropriate to speak of a non-system, although he is aware that people systematize even in the context of such a 'non-system'. Last's main point, however, is well taken: people's thinking and acting upon health problems may be considerably less well-defined than anthropologists, hunting for meaning and rationality, may want to admit. This suggestion could well be applicable to the reinterpretation of pharmaceuticals. Decisive motives for taking specific medicines may be ambiguous and even unconscious. Views of the difference between particular medicines may constitute a non-system in Last's sense. What is systematic is the ritual of drug taking which, as I have suggested earlier, provides a symbolic marking of the fact that a person is ill or that he is being treated and will thus recover. Viewed in

this way, not the type of drug, but drug *taking* as a culturally defined act, seems of primary importance.

A second note of caution is that we should beware of a too 'natural' view of our own culture. In pharmaceutical anthropology this would imply an exclusive interest in non-Western concepts about drugs and a neglect of drug concepts in Western countries. There is, however, another more hidden form of 'ethnocentrism': regarding only lay people's concepts as objects of anthropological research and overlooking the 'culturalness' of professional ideas. This bias underlies the original formulation of the 'disease-illness distinction'. But the same ethnocentrism repeatedly appears in studies that accept without question the pharmacological conclusions about the benefits or dangers of pharmaceuticals.²⁴

An example of this bias can be found in Helman's (1984) otherwise excellent introduction in medical anthropology. He provides 'exotic' examples of folk-concepts about anatomy, food, illness and medicines in Western society, but hardly pays attention to the ideas of physicians. Kleinman (1980) similarly presents 'colorful' descriptions of patient explanatory models of physiology that conflict with those of the physicians. But while the patients' models are closely scrutinized, those of the nurses and physicians are very much taken for granted. The growing literature on overprescribing suggests that their ideas about drugs merit anthropological research as well. A point deserving special attention is the high preference for injections that has been observed world-wide. This preference exists not only among lay people/patients (cf. Wyatt 1985),²⁵ but also among physicians, as we have seen when we discussed drug prescription.

Efficacy

The fifth and last research theme in pharmaceutical anthropology discussed here is drug efficacy. Etkin's contribution to this volume criticizes the biomedical bias of most studies of efficacy in non-Western cultures. She points out that these studies either fail to take local medical theories seriously, or coopt them by conflating them with the biomedical model. She pleads for an interdisciplinary approach which attempts to combine etic and emic viewpoints and takes into account the cultural dimension of efficacy. A similar plea is implied in the growing literature on the placebo effect²⁶ which suggests that the efficacy of drugs cannot be understood when we limit ourselves to medical-pharmacological explanations. If we make the somewhat artificial distinction between the actual effect of drug taking and the perception of the effect, we can discern a twofold contribution of anthropology to the study of efficacy.

Helman (1984: 106), following Claridge, speaks of a 'total drug effect' which is brought about by various aspects, only one of which is the pharmacological substance of the drug. The other aspects are:

1. the attributes of the drug itself (such as taste, shape, colour and name); 2. those of the patient receiving the drug (such as experience, education, personality, socio-cultural background); 3. those of the person prescribing or dispensing the drug (such as personality, professional status or sense of authority); and 4. the setting in which the drug is administered – the ‘drug situation’ (such as a doctor’s office, laboratory or social occasion).

By studying the context of drug taking we may gain a fuller understanding of efficacy. The various research themes mentioned above present a great deal of that context: the patient’s ideas and expectations, the distribution situation, the identity of the drug dispenser, etc. At the same time it should be stressed that it is not known *how* these cultural factors are related to the healing process. The most probable hypothesis is that the patient in a particular context and using the semantic resources available to him ‘creates meaning’. It is this meaning which may be either wholesome (placebo) or noxious (nocebo; with the ultimate consequence of ‘voodoo death’) (cf. Hahn and Kleinman 1983b).²⁷ Moerman (1983a: 158) says it neatly: ‘Meaning mends’ and ‘Metaphor can heal’. But, again, how this takes place we can only guess at present.

It should be noted that the placebo effect has mostly been regarded as a troublesome disturbance in pharmacological testing. Slowly it has dawned upon some medical scientists that the placebo may be one of the most exciting and promising discoveries in the entire history of medicine. Surprisingly, however, systematic research into the ‘roots’ of placebo is still minimal. A possible explanation may be that there is little commercial attractiveness in placebos; they cannot be patented and sold by the pharmaceutical industry. The placebo can be likened to ‘orphan drugs’, pharmaceuticals that are treated in a stepmotherly fashion by the industry because they yield no profit.

There are also, however, good medical reasons that may discourage placebo research, since such research may be counterproductive in terms of effect. Placebo research is likely to destroy its own findings. Placebos seem to be especially effective when patients do not recognize them as placebos. Metaphors thus seem to heal best when they are taken literally, as long as their symbolic identity is not recognized. De-mystification could have the same devastating effect on medicine as it has had on religion.

The most prominent explanation for the reluctance to enter into placebo research is, however, that placebos lie outside the biomedical paradigm and are hardly ‘seen’ by medical researchers. It is no wonder that the term ‘placebo’ has been predominantly used in a pejorative sense in biomedicine. It indicated the imperfection of pharmaceuticals, or ‘explained’ the success of alternative medical practices.²⁸ ‘Placebo’, one could say, is often used to mark the boundaries of biomedicine, to express the difference between ‘we’ and ‘they’. Thus, one often finds physicians resistant or even hostile to the idea that when they prescribe drugs with few likely benefits to a patient they are in effect using these as placebos. Instead, physicians generally discuss such practices in terms of the ‘known’ efficacy of certain pharmaceuticals against

particular diseases, ignoring the small probability that this particular illness is the result of the previously identified pathogen for which the drug is known to be effective. This is not to say that the placebo is completely neglected, but that those conducting placebo research find themselves somehow at the fringe of biomedicine.

One short remark should be made about the studies on placebo which *have* appeared. The placebo effect in biomedical practice has been exclusively studied in Western societies. The few existing observations of placebos in a non-Western context apply entirely to indigenous medical practices. The most classic examples are probably Lévi-Strauss’ (1963) essays ‘The sorcerer and his magic’ and ‘The effectiveness of symbols’.²⁹ The Ndembu ethnographic work by Victor Turner has also frequently been cited for its presentation of efficacious therapeutic symbols (see for example Douglas 1975). Non-Western healing practices have often been described as effective because of their histrionic and persuasive character (such as singing, dancing, praying, exorcism, trance, etc.) (cf. Rubenstein 1984). Thus, the effectiveness of placebos, writes Moerman (1981: 257), is underrated in modern and overrated in ‘primitive’ medicine. The study of Western medicine’s placebo in a non-Western context constitutes a special challenge to medical anthropologists and others. It could improve the understanding of placebo in general.

There is a second aspect to the anthropological study of drug efficacy which I will mention only briefly. Anthropologists have pointed out occasionally that efficacy is not a concept that can be measured objectively. Healing, like beauty, is in the eye of the beholder, it is a cultural concept, that does not lend itself easily to intercultural codification (cf. Hansluwka 1985).

The concept of ‘health’ (which is the desired result of a drug’s efficacy) tends to be inchoate even within local cultures. People, including medical practitioners, find it easier to define illness (or disease) than to describe health. And some societies may even lack an ideal construct of health that corresponds closely to the meaning of ‘health’ in Western countries. Welsch (1982), for example, makes this point for the Ningerum in Papua New Guinea. Many anthropologists nevertheless have tried to provide a sketch of what people in ‘their’ culture understand by health.³⁰ Such sketches often contrast sharply with narrow biomedical definitions. They emphasize that ‘health’ is a holistic concept, including not only the body but also psychic, social, religious and even economic aspects, referring not only to the individual, but also to his kin, his cattle, his natural environment and his business.³¹ There is, however, no *apriori* reason to assume that any society should have a clear concept of health that can be understood in terms of a Weberian ‘ideal type’. Thus attempts to define what people understand as ‘health’ may be a misguided and poorly advised endeavor.

Kleinman (1980: 311–74) who studied the efficacy of various medical systems in Taiwan discusses the ‘vexing yet basic question: What is healing?’ (p. 354):

Successful treatment (can mean) . . . success in treating the female family member (s), rather than the sick person . . . (or) appropriately treating the fate or expelling the god or ghost possessing the client . . .

Kleinman then seeks shelter in the distinction 'disease' – 'illness'. From an etic biomedical point of view a disease may be treated effectively, even though from an emic cultural point of view, the illness is not, and vice versa (p. 360). Even if this explanation were intellectually satisfying, it would pose a dilemma in practical policy. Should 'charlatans' and 'quack doctors' be tolerated if people regard them as effective? Do 'charlatans' and 'quack doctors' exist at all in the light of an emic definition of efficacy? And what should be done with dubious and dangerous pharmaceuticals when people say they 'work'?³²

If there is so much variety and vagueness in cultural definitions of health and if the concept of healing is so elusive, an intercultural discussion about the efficacy of medicines becomes problematic, if not impossible. Should streptomycin be called efficacious if it does not appease the ancestors? There are no intercultural standards for health or drug efficacy. In Kleinman's terminology, the perception of effective healing, is part of the Explanatory Model, which may vary from (sub)culture to (sub)culture. The concept of efficacy is itself a cultural artifact. It is the thankless task of the anthropologist to point this out to health planners, without being able to show them an easy way out of the dilemma.

Of course, international criteria for health and healing can be established, but they are bound to be based on cultural dominance, most likely the dominance of biomedicine. Anthropological research should reveal the pitfalls of such an international definition, by emphasizing emic views. But they themselves run the risk of falling into another pitfall, that of overemphasizing the difference and viewing them as static, the trap of exoticism. Research into concepts of drug efficacy is faced with the same challenge mentioned with regard to medicinal concepts in general: it should have an eye open to the transitional, pluralistic and syncretic character of those ideas; it should also take seriously the absence of clear ideas.

PRACTICAL RELEVANCE

It would be gratifying to end this survey of themes in pharmaceutical anthropology with some clear-cut examples of how its insights can be put to practical use. Various authors in this volume do in fact discuss the practical relevance of their research (e.g. Ferguson, Wolfers, Ugalde and Homedes; Kloos et al.; Logan, Bledsoe and Goubaud; and MacCormack and Draper), but unrestrained optimism about such possibilities would be naive. Getting to know and understand the context of medicines in developing countries makes one hesitant to prescribe simple practical suggestions. Whole-hearted applied

anthropology seems feasible only for those anthropologists who are able or willing to close their eyes to a part of social reality.

Anthropologists are best at pointing out the mistakes that have already been made. McElroy and Townsend (1979: 408) remark that anthropologists are often called in too late. As a result they can give only 'a postmortem analysis of what went wrong'. I would rather say, however, that anthropology is 'postmortem discipline'. It is not called in too late, it prefers to arrive late. Before things go wrong it does not offer much advice. It does little more than describe the complexity of the problem.³³

Foster and Anderson (1978: 205–301) optimistically devote a hundred pages to practical roles that anthropologists can fill in medicine. But it must be reckoned to their credit that they do not let themselves be enticed to give ready-for-use prescriptions. They summarize the anthropologist's role in health development in four areas: (a) offering a holistic view; (b) emphasizing cultural relativism: 'a willingness to look sympathetically on the cultural forms of other societies and not judge them against the "normal" of our own' (1978: 211); (c) warning against misunderstanding in cross-cultural communication; and (d) suggesting a more appropriate research methodology to explore the problems encountered in medical programs. These four points can be summed up in one: making health technicians more sensitive to people's problems. I would not be surprised if some of the technicians lack the sensitivity to get the message. They are instead looking for concrete solutions. In a recent publication Foster (1987) has chastized the WHO for the low standard of its behavioral research. His pessimism about present applied health research implies however optimism about better possibilities. Foster pleads among other things for more recognition of qualitative research.

The major practical relevance of pharmaceutical anthropology is probably its *suspicion* of solutions. Anthropologists are awkward consultants in development work and wavering critics of the industry. They are a nuisance to policy makers who think that they have solved the problem, and they spoil the pleasures of action groups.

To illustrate my point I will sum up a number of common solutions to the problems of supply and use of pharmaceuticals in developing countries, adding some anthropological comments to each. Solutions have been suggested by many authors and organizations. Comprehensive overviews are provided by Melrose (1982: 129–99), Beardshaw (1983), HAI (1982b) and Medawar (1984). From these lists of solutions I consider only a few examples and these have been chosen somewhat selectively, because they suit my purpose.

The best known and most widely documented policy measure is the WHO's (1977, 1983) proposal for *essential drugs program*. Briefly, the proposal entails ensuring that populations in Third World countries have access to essential drugs at reasonable prices. The plan was remarkable in two respects.

It was designed very late although it seems the most obvious solution one could think of. Secondly, although it was unanimously applauded, only a handful of countries have effectively implemented it.³⁴

A (more or less postmortem) anthropological analysis would stress at least three points which (with local variations) can be derived from a contextual description of the essential drugs program. They are: (1) the obstacles to implementation raised by various groups with vested interests in the old situation;³⁵ (2) the 'irrational' preference for non-essential drugs among lay users of medicines; and (3) the observation that public and private health care are so intertwined (cf. Ferguson and van der Geest in this volume) that it is impossible to introduce essential drugs in the public sector alone. An additional observation, no less pertinent, is that effective implementation of an essential drugs scheme is unlikely to prevent harmful misuse of drugs. Dubious lay practices of drug use will almost certainly continue after its implementation, leading to 'inessential' and even harmful use of drugs which are meant to be essential.³⁶

Another important initiative for improving access to useful drugs in developing countries has been an attempt to introduce essential drugs in conjunction with *primary health care*. Primary health care involves a comprehensive program for better health, emphasizing the primal importance of prevention and self-reliance. Drugs are thus introduced in a context discouraging their use. I am not denying that this is a very sensible way of improving access to medicines, but again some marginal notes from the anthropologist's point of view seem in order.

By now we have overwhelming evidence that the basic idea of primary health care, viz. self-reliance, is missing in most so-called 'primary health care programs'. These programs are usually initiated by national or regional authorities with the help of outside financing. The very start of such programs implies a denial of their basic tenet. 'Development from below' is introduced from above. The net result is often an increase in dependency instead of self-reliance (cf. MacCormack and Draper in this volume). If medicines are supplied through the program, they will add their momentum to the loss of self-reliance, because medicines are the most desired and sought after products of Western medicine and they can only be obtained from outside the community.

It is, however, not so certain that medicines will in fact become more available through primary health care. Designers of primary health care often had a far too harmonious picture of local communities. It is naive to expect that communities have no conflicts and that their members will unanimously work for common goals, particularly when they may find it hard to survive privately. In actual practice individual members often see primary health care as an opportunity to improve their own position, and use its supplies for private consumption. One of the most desired supplies is, of course, medicines. I have seen numerous unpublished evaluation reports mentioning this

problem. I have also had quite a few conversations with planners and fieldworkers confirming the disappearance of medicines from primary health care facilities.

Another suggestion frequently offered is to *improve the quality of the drug distribution services* that are *already in existence*, rather than starting entirely new experiments. The four most common distributors of drugs, as we have seen, are physicians (prescribing and selling), pharmacists, traditional health practitioners and unqualified drug vendors. The improvement of the physician's role in drug distribution has, of course, been the most common recommendation. One of the ways to achieve this would be providing them with 'balanced drug information' and 'guidance on cost-effective treatments' (Melrose 1982: 195). The improvement of the pharmacist's role has been suggested by, among others, Gish and Feller (1979: 88) and Mitchell (1985). The contribution to this volume by Logan makes a similar proposal. The idea here is that pharmacy workers are often expected to advise clients on drug use. Informing them about correct drug consumption and the dangers of drug misuse could have a beneficial effect on the quality of drug use. It is evident that this recommendation would be pointless without prior anthropological investigation into the actual practices going on in local pharmacies.

Another suggestion, that many will regard doubtfully, is the training of indigenous healers to improve their knowledge about Western pharmaceuticals and to enable them to prescribe and distribute these drugs more correctly. One author proposing this solution is Dunlop (1975). Numerous commentators have recommended a general integration of traditional practitioners into the formal health care system (because they 'are there already') (Pillsbury 1979). This would certainly also include accepting their role in prescribing and supplying drugs.

The idea of giving training to drug vendors is mentioned by Nordberg (1974) and Buschkens and Slikkerveer (1982: 121) for Ethiopia, by Casey and Richards (1984) for Nepal and by Sural (1985) for Bangladesh. Undoubtedly this idea will be rejected by a large number of health workers, who regard the unqualified drug vendor as a serious health hazard in Third World countries.

Although I sympathize with all the above suggestions, I want to draw attention to one formidable factor that is likely to hinder the intended measures quite seriously: the commercial one. Training will certainly be helpful in so far as the problems derive from lack of information. But there are indications that, from Western-trained physicians to unqualified vendors, it is the commercial aspect of pharmaceuticals that leads most directly to maldistribution, overprescription and misuse. Fieldwork at the spot should reveal whether the commercial factor is likely to become an obstacle in particular cases.

Another suggestion has been aimed directly *against the commercialization* of medicines. Marxist oriented authors in particular have proposed that the

state regulate the supply of medicines. Pharmaceuticals, they argue, should be de-commercialized and be made available free of charge to everyone who needs them.

Anthropological reports in various developing countries make one wary of the feasibility and effectiveness of state regulation. My own research in Cameroon, for example, dealt directly with problems of gratis drugs in public health care. The absence of the commercial factor proved as problematic as its presence elsewhere. Drugs tended to be in short supply both for patients and health care workers. Bureaucratization and illegal private use of medicines (petty corruption) took the place of commerce, or rather became a new type of commerce.³⁷ A study of the social context of drug distribution could provide suggestions as to how much commerce is needed to keep the system running. The experiment in the Dominican Republic reported by Ugalde and Homedes in this volume shows the value of research for tackling these problems.

A very specific suggestion is to *tighten the 'controls on private drug distribution* to prevent sales of prescription drugs by untrained and unlicensed drug sellers' (Meirose 1982: 195). Anthropological research shows how problematic this advice is. In the first place, drug sellers are so much in demand *because* the official system cannot guarantee a sufficient and evenly distributed supply of drugs. Earlier in this chapter I have said that drug vendors tend to be ubiquitous, even in rural areas. They provide drugs where the government fails. Putting a stop to their practices would cause serious problems for villagers who have no alternative ways to purchase certain prescription medicines they need. Another problem lies in the idea of 'control'. Lack of control is usually not a technical failure but a structural characteristic of young soft states, one that has been extensively described by political anthropologists such as Huntington, Leys, Scott and Wertheim. Strengthening control over public goods would require structural societal change. Without such a change 'more control' could mean 'less control' because more people privately benefit from their position as controller.

Again another suggestion, heard from the consumer movement, is *to mobilize consumers of medicines* in the Third World. The question of the innocent anthropologist would be: who are these consumers? The existing studies of pharmaceuticals in the Third World, as we have seen, are mainly concerned with the macro-structures of drug distribution. We know virtually nothing about the people who actually *use* the medicines. We do not know their needs, their expectations, their ideas about medicines, how they are entangled in political or economic relations, etc. As long as so little is known about them it seems ill-advised to 'mobilize' them, if this were possible at all. Consumer action could even turn out to be harmful to consumer interests.

This problem poses a considerable dilemma to consumer groups. Not being able to know, let alone reach and assist, these consumers, they help most

those who need their help least. A spokesman of the pharmaceutical industry has, with anthropological wit, observed a similar paradox in Western society:

... those patients who might be thought most at risk of suffering poor treatment are probably those least likely to be represented by the more active consumerists. Desirably or otherwise, older, sicker and less-educated people probably want to be able to put their trust in their doctors and avoid being confronted with too many difficult choices related to their treatments (Taylor 1983: 26).

Action and consumer groups in the industrial world have also pleaded for a *tighter control of the export of pharmaceuticals* from their own country to the Third World. One problem with this suggestion is easily recognised by anyone: the multinational structure of the pharmaceutical industry makes it easy to circumvent restriction on its export from one country. More information about the conditions of drugs procurement in Third World countries will probably teach activist groups that the political, commercial and medical elites there, eventually determine what medicines are delivered, although it must be admitted that their choices are heavily influenced by the industry. 'Solutions' which overlook the local elite factor are not likely to have much effect at all.

The pharmaceutical industry has its own 'solutions'. One has been a voluntary '*Code of Pharmaceutical Marketing Practices*' (IFPMA 1981) which, it claims, meets the complaints of its critics concerning misleading advertising and other dubious marketing practices in the Third World. In actual fact the code has been a successful attempt to prevent the imposition of a harsher and 'involuntary' code composed by the international consumer organization, Health Action International (HAI 1982).

One need not be an anthropologist to see that such a voluntary code is a sham, to allow the continuation of old marketing practices in a more watchful world. The code as such, therefore, does not call for anthropological comment, but its content does, in particular the general thrust that the industry is fully aware of its special responsibility, that it produces high quality medicines and sincerely tries to safeguard optimal use of those medicines.

Research into the conditions of medicine distribution and use in developing countries reveals that the industry cannot be serious when it says that its products 'have full regard to the needs of public health'. Its optimistic assessment of the use of its products seems unwarranted in most developing countries. Although it purports to be concerned about public health, it is uninterested in Third World conditions that encourage wrong use of its medicines and subsequently cause serious health hazards. When the industry is informed about these conditions it ignores or even denies them (for two examples see Medawar and Freese 1982; Wolffers 1983). The industry attempts to continue its business with the help of some 'myths' that vaguely imply that conditions in the Third World are the same as in the industrialized

world of the West. Three of those myths are: (a) that the industry can guarantee the safety of its products and the adequacy of its information; (b) that it is able to withdraw misinformation about its drugs when necessary; and (c) that prescription-drugs are purchased with a doctor's prescription.

It is not difficult for an anthropologist to show that in a particular society these claims are untenable. A description of the context in South Cameroon, for example, reveals that drugs are taken in completely different ways than prescribed by the industry and that those who do so have no possibility of discovering this because the industry's information on correct use is not available. My research also makes clear that misinformation about drugs is wide-spread and that the industry can do very little about it. It finally shows that prescription drugs can be obtained everywhere without a doctor's prescription.

Pharmaceutical anthropology may not have many 'prescriptions for change' but the above examples will underscore my claim that such analyses can be useful in pointing out the weaknesses and contradictions in solution which are being proposed. Furthermore, insights derived from anthropological field research make one wary about the possibility of improving drugs use by 'talking to' the authorities. Anthropologists have pointed out that authorities often have a direct interest in maintaining the existing conditions. Providing information and suggestions to those who are the 'victims' of present circumstances seems a more realistic lever for change.

CONCLUSION

The primary purpose of this chapter was to present themes for anthropological research on pharmaceuticals in developing countries by taking stock of what has been done so far and suggesting new research that should be undertaken to gain a deeper understanding of pharmaceuticals. The second aim was to discuss the practical relevance of pharmaceutical anthropology.

The conclusion is that anthropological research on Western pharmaceuticals in a non-Western context is still scarce. To date, the overwhelming majority of studies have been undertaken from a biomedical or economic point of view. Contextualization is hardly applied and the authors rarely manage to 'de-naturalize' their own medical and pharmacological concepts.

At present, policies for the improvement of drug use in developing countries are being initiated while the cultural complexity of drug use is but poorly understood. There is a greater-than-ever need for an anthropological analysis that views pharmaceuticals in their 'natural' context and, at the same time, divests them of their 'naturalness'. Such anthropological research should deal with the social and cultural aspects of the entire life history of pharmaceuticals, their production and marketing, their prescription, retail distribution and consumption and their efficacy. During their 'lives' pharmaceuticals move

from hand to hand and from head to head. Both the transaction and the meaning of medicines deserve the anthropologist's attention.

This collection of studies makes a beginning by viewing medicines in their cultural context. The authors show how medicines as commodities are produced, sold and consumed. They elucidate the roles of drug company salesmen, pharmacists, street vendors and 'traditional' practitioners and finally they describe how Western pharmaceuticals are understood in terms of local medical cultures. Their findings are not only relevant for health care policy in developing countries; they also provide us with a fresh perspective on the cultural dimension of the use of medicines in the West.

NOTES

1. This chapter owes very much to Robert Welsch who commented extensively on its earlier versions and provided numerous suggestions for change. I also thank my co-editor Susan Whyte for her help and comments.
2. Some publications analysing the working of the multinational industry are: Beardshaw 1983; Blum et al. 1983; Bühler 1982; Gish and Feller 1979; Haslemere Group n.d.; Heller 1977; Lall 1977; Ledogar 1975; Melrose 1982; Muller 1982; Patel 1983; Turshen 1976; Unctad 1975 and 1982. Research on the biased drug information in developing countries was carried out by (among others): Medawar and Freese 1982; Osifo 1983; Silverman 1976 and 1977; Silverman et al. 1982a and 1982b.
3. Some doctors, I was told, may first prescribe a drug and then add a 'fitting disease' to it. As some doctors know very few drugs this method greatly simplifies the diagnosis. Prescribing reassures the patient *and* the doctor (oral communication, David Lee, Panama).
4. There is abundant literature on biased information by the industry. Some of the most prominent publications are: Greenhalgh 1987; Medawar 1979; Melrose 1982; Osifo 1983; Peters 1983; Rolt 1985; Silverman 1976; Silverman et al. 1982; Yudkin 1980.
5. The examples of 'irrational' prescribing cited by Silverman et al. (1982: 91-2) are:
 - prescribing multiple hormones, multiple antibiotics, and similar combinations when only a single drug is clinically indicated;
 - prescribing any antibiotic in the treatment of 'flu' or the common cold;
 - prescribing a newly-introduced drug solely on the grounds that it is new;
 - declining to prescribe or dispense a high-quality, low-cost generic-name product in place of a costly brand-name product - which may or may not be of high quality - on the grounds that 'the generic firms can't be trusted' (such prescribers and pharmacists are apparently unaware that the generic and the brand-name versions may be made by the same firm);
 - giving a drug by injection rather than by mouth because 'our people prefer it that way - we belong to an "injection culture".' (Patients and physicians alike have been duped by rumors and hush-hush campaigns suggesting that aspirin is too dangerous for most children - 'You doctors in Europe and America do not seem to know this' - and should be replaced with a costly and more hazardous substitute, preferably given by injection.)
6. Two examples of doctors' compliance are reported by Sich from Korea. She describes how she was induced by a woman in labor to do a cesarian section, although this was against the medical criteria she adhered to. The other example was an old man with a common cold who made a doctor comply with his request to give him an injection of Kanamycin (Hinderling and Sich 1985: 8). Doctors' compliance to patients' demands is particularly prone to occur when doctors compete for clients on a free market basis. Wolfers' contribution to this volume provides a case in point. Sri Lanka traditional practitioners use Western medicines in

- order not to lose patients. A Dutch study (Krol 1985) has shown that general practitioners frequently refer patients to a specialist because the *patients* want it. Referring children to a pediatrician happens in 46% of all cases on request of the parents. Helman (1978) makes the point that physicians in Britain sometimes use concepts that closely parallel the concepts of their patients rather than those of their medical training.
7. Haak (1987) reports from two Brazilian villages that 48 out of 62 households were of the opinion that every consultation with a doctor should end with a prescription.
 8. A typical example of harmful overprescribing is reported by Hardon (1987: 281) in the following case occurring in a Filipino village:

Emma complains. Her child has diarrhoea. And she consulted a private doctor. She wants the best she can get for her child. The doctor prescribed five medicines. She cannot buy them, as her husband is jobless this month. She has borrowed money from relatives . . . I ask her how severe the diarrhoea is. I categorise it as simple diarrhoea: according to the recommendations in the Primary Health Care manuals oral rehydration is the best therapy. The doctor prescribed: a drug to prevent vomiting, an anti-diarrhoeal, an antibiotic, a multi-vitamin, and an analgesic. Total price: 120 peso (one week salary).
 9. For studies discussing therapeutic practices by pharmacists see for example: De Walt 1977; Dressler 1982; Ferguson 1981; Group DCP 1984; Haak 1987; Igun 1987; Kloos et al. (this volume); K. Logan (this volume); Mitchell 1983 and 1985; Nichter 1983; Sussman 1981; Weisberg 1982.
 10. The following studies refer to the role of unqualified personnel in licensed pharmacies: Ferguson (this volume); Haak 1987; Igun 1987; Jayasena 1985; Unschuld 1976; Van der Geest 1985; Weisberg 1982; Wolffers 1987b.
 11. Some studies referring to informal private practices by health personnel are: Bledsoe and Goubaud 1985; Janzen 1978; Lasker 1981; Maclean 1974; Nichter 1978; and 1983; Thomas 1975; Van der Geest 1982b and 1985; Wolffers (this volume).
 12. Studies referring to the distribution of Western drugs by non-Western healers do so only briefly. Some examples are: Alexander and Shivaswamy 1971; Alger 1974; Bhatia et al. 1975; Brown 1963; De Walt 1977; Dobkin de Rios n.d.; Dressler 1982; Fabrega and Silver 1973; Golomb 1985; Messenger 1959; Minocha 1980; Nichter 1983; Taylor 1976; and Waxler 1984. A more substantial discussion is found in Burghart (this volume) and Wolffers (this volume and 1987a).
 13. Anne Laurentin told me in 1979 that during her work as a physician in Burkina Faso and the Central African Republic she sometimes ran out of drugs, especially antibiotics. She then informed the local chief who often managed to bring in a trader with the required drug. Not infrequently the drugs were in bottles with hand-written labels, which made it impossible to check them.
 14. For a more elaborate discussion of illegal drug sale, see Fassin 1985 and Van der Geest 1982a.
 15. Some studies referring to drug vendors are: Bagshawe et al. 1974; Bledsoe and Goubaud 1985; Buschkens and Slikkerveer 1982; Dressler 1982; Fabrega and Silver 1973; Janzen 1978 and 1979; Kleinman 1980; Kloos 1974; McEvoy 1976; Nichter 1983; Nordberg 1974; Schulpen and Swinkels 1980; Thomas 1970; Unschuld 1976; Van der Geest 1987. Some publications that mention the administration of injections by vendors are Cosminsky and Scrimshaw 1980; Cunningham 1970; Ferguson 1981; Maclean 1974; Taylor et al. 1968; Van der Most van Spijk 1982; Whyte 1982 and this volume.
 16. Authors who mention a – sometimes peripheral – medical background of drug vendors are: Buschkens and Slikkerveer 1982: 54; Cominsky and Scrimshaw 1980: 271; Igun 1987; Maclean 1974: 107; Taylor 1976: 298; Van der Most van Spijk 1982: 47. The Underwoods (1981) give the example of an 'injection doctor' in South Yemen who had spent one month as

a hospital cleaner. In Ghana I heard about a hospital gate keeper who trained himself by 'checking' and studying the patients' prescriptions. After some time he set up a private practice of his own in a village at some distance from the hospital.

17. The observation concerning pharmaceutical companies' primary interest in profits may apply equally to many drug vendors, who seem to be little hindered by knowledge of the dangers of wrong drug use. Ferguson (this volume) writes that the owners of two pharmacy shops in El Salvador 'engaged in their own forms of dumping', and Last (1981: 392) makes mention of vendors who 'extended normally specific illness terms to cover arbitrarily a wider range of symptoms in order more easily to sell off a specific remedy'. I witnessed similar practices during research in South Cameroon.
18. Some publications which discuss self-medication in a non-Western context are: Abosedo 1984; Greenhalgh 1987; Haak 1987; Hardon 1987; K. Logan 1983; Kleinman 1980: 179–202; Nitschke et al. 1981; Ohnuki-Tierney 1981; Parker et al. 1979; Van der Geest 1987; J.C. Young 1981: 104–8; and various contribution to this volume. An overview of literature on self-medication is provided by Kroeger 1983.
19. See also Kleinman 1980; Lewis 1975; and Welsch 1982. An early study focusing on the role of the family in treatment involvement is Boswell's (1965) research in a Zambian hospital.
20. Re-conceptualization of Western ideas and practices was mentioned very early by Paul (1955) in the introduction to his classic study. Few researchers, however, have taken up his call for further study in this field.
21. 'Translation' from professional to layperson also takes place within Western culture. Blumhagen (1982) for example shows how patients in the USA translate bodily sensations into medical terms as 'hypertension'. Helman (1984) quotes some British studies which describe lay perceptions of physiology and disease that are partly derived from professional theory. They use its terminology and yet differ sharply from it. Kleinman's (1980) Explanatory Model is an attempt to account for such 'translations'. It would be short-sighted to see only the translations from Western to non-Western, and from professional to non-professional. Translations in the opposite direction are equally common, but seldom recognized. Cultural anthropology, in spite of its emic claims, could be regarded as a continuous attempt to understand foreign phenomena in Western terms. By the same token, medicine reformulates lay experiences into professional language.
22. In the meantime Logan's study had been reprinted in Landy (1977) and Logan and Hunt (1978). A revised version of the article by Bledsoe and Goubaud is found in this volume.
23. The 'construction' of culture by anthropologists has been a recurrent theme in recent anthropological self-reflection. Goody (1977) has suggested that the dichotomous view of cognitive aspects of human cultures (advanced versus primitive, modern versus traditional, logico-empirical versus mythopotic, etc.) should be regarded as an ethnocentric attempt by the Western academic to express the 'we-they experience'. Hobsbawm and Ranger (1983) have collected essays in which it is argued that 'tradition' is not simply there, but is 'invented' by dominant social groups, often for very practical purposes, for example in a colonial context. The idea of 'tradition' often produced a platform for symbolic forms and ceremonies to legitimize political power. From there it is only a small step to 'Culture as camouflage' (Schrijvers 1983), hiding social and economic oppression behind cultural phrases and images.
24. See also Etkin (this volume) on the concept of efficacy in non-Western pharmaceuticals on this latter point.
25. Mburu (1973: 94) writes about the Kenyan situation: 'Cognitive orientation towards the use of injection is so intense . . . that many people regardless of their educational level think it is the only valid type of modern therapy'. Studies mentioning the popularity of injections abound; see for example Bledsoe and Goubaud 1985; Burghart (this volume); Cunningham 1970; Igun 1987; Kleinman 1980; Nichter 1980.
26. The placebo effect can be – negatively – understood as the total drug effect minus the pharmacological effect of the drug.

27. The concept 'nocebo' ('I shall harm') is sometimes used to indicate a negative placebo effect, for example by Herzhaft (1969). Illich (1977: 121-2) uses the term to describe the process of 'social iatrogenesis'. Medical procedures, according to Illich, have a nocebo effect when 'instead of mobilizing his self-healing powers, they transform the sick man into a limp and mystical voyeur of his own treatment'. For an ethnographic account of 'voodoo death' see Lewis 1987.
28. In a WHO discussion Polunin (1982: 20) has said that 'reliance on the placebo effect . . . is characteristic of charlatans'. Some 'hard' biomedical statements on placebo are also quoted by Brody (1983). As Lisbeth Sachs pointed out to me, the fact that the placebo has not been included in the WHO's list of essential drugs epitomizes biomedicine's suspicion of it (personal communication). In some countries, however, vitamins are included as placebos.
29. Laderman (1987) has criticized the somewhat apocryphal status of the shaman's words cited in Lévi-Strauss' latter article. Lévi-Strauss never witnessed the events nor heard the words which were to become the classic anthropological example of symbolic healing. His argument is entirely based on a text transcribed by others.
30. It is remarkable, however, that anthropologists rarely present indigenous *terms* used by their informants to describe those experiences which the ethnographer believes should be translated as 'health'. An exception is Ohnuki-Tierney's (1981: 34) analysis of the Ainu term *ramu pirika* which literally means 'soul-beautiful', and, according to the author, refers to the essential unity of body and mind in the Ainu concept of health.
31. Publications that stress a holistic view of health in various non-Western cultures are (to mention only a few): Fabrega and Silver 1973; Morley and Wallis 1979: passim; Hinderling 1981 and Katz 1982. Some anthropological observations are tinged with a dose of romanticism, reflecting the desire for 'lost values' in their own culture. A typical example of such a romanticizing view is the following quotation from Katz (1982: 34) about the Kung Bushmen in Southern Africa:

Healing seeks to establish health and growth on physical, psychological, social and spiritual levels; it involves work on the individual, the group, and surrounding environment and cosmos. Healing pervades Kung culture as a fundamental integrating and enhancing force.

The well-known WHO definition of health comes close to it: 'A state of complete physical, mental and social well-being'. This definition has been widely criticized as too static, too soft, too broad and too idealistic (for an overview of the comments see Hanslowska 1985). Lewis (1976: 100-2), who worked as a physician and anthropologist among the Gnau in Papua New Guinea, rejects the holistic definition, at least for illness: '. . . illness is a misfortune sensed by the sick person in ways which other misfortunes, like his house burning down, are not'. Lewis suggests that this must be a 'universal recognition'.

32. For more discussion on emic concepts of the efficacy of medical treatment and on the difficulties of comparison, see Lévi-Strauss 1963; Thomas 1973: 242-51; A. Young 1977; Foster and Anderson 1978: 123-6.
33. Heggenhougen (1985: 133) criticizes anthropologists for their passive attitude in health development:
- Anthropologists should not only show why something should not be done in a certain way but should make suggestions for alternative approaches . . . We must persist in presenting a broader definition of progress and development and in cautioning impatient developers to consider the socio-cultural, economic, and health ramifications a program may have. But a concern for complexities should not prevent action altogether.
34. About 40 countries report that they have implemented an essential drugs program (1987), but I regard most of these programs as little effective; doctors are still able to prescribe 'non-essential' drugs and patients continue purchasing them in the private sector. The

publications on essential drugs are numerous. Most of them are from a medical-pharmacological, economic and political point of view. Extensive bibliographies are provided by Bannenberg 1985, Mamdani and Walker 1985 and WHO 1985.

35. Observations about the obstruction of essential drugs programs now abound, but – understandably – precise and 'hard' data on this sensitive issue are difficult to come by. One of the first observations is by Lall and Bibile (1978) in Sri Lanka. Descriptions of Bangladesh's attempts to reorganize drug supply are manifold (see e.g. Rolt 1985). In a note about three East African countries Korn (1984: 35) is outspoken and vague at the same time:

It is a strange experience speaking to the doctors in Eastern Africa. You will not find one you would suspect of accepting bribes or of excessive prescribing, let alone one who would admit to such practices. However, the national import statistics, the shelves of the pharmacy stores, and the rarely available records of the international drug companies will convince you that you are dealing with Jekyll/Hydes who are likely to raise silent and obstinate political pressure against any attempted drug policy in their country.

Referring to Tanzania the author turns almost cynical:

The philosophical and political platform for a national drug policy existed in Tanzania. The economic disaster situation would also help to justify to the population a restrictive drug list. Anyone would agree that some essential drugs would be better than no drugs at all. Nothing but the implementation was lacking in Tanzania (Korn 1984: 36).

36. A collection of papers (Sterky 1985) on essential drugs, published by the Dag Hammarskjöld Foundation in Uppsala, Sweden, illustrates this point. Concepts like 'rational use' of medicines and 'needs', why take a prominent place in many of the papers, are only used in a biomedical sense. A more cultural definition of 'rational' and 'need' would have made the discussion far more complex!
37. Some countries seem to be an exception to this 'rule'. It is reported that Botswana and Zimbabwe, for example, have an efficient public system of drug distribution which leaves few opportunities for informal private trade in medicines (various oral communications).

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