be greatly extended. It may then well be asked whether this change is a necessity or a luxury which the country can at present ill afford. The factor of cost is unmentioned in the report, but it seems unlikely that these proposals could be carried out without very considerable expense. One specific suggestion calls for careful consideration; this is the more frequent employment of non-medical scientists in pathology departments. Many such biochemists and a few bacteriologists have given good service, but we hope that there will be no deliberate policy to multiply such appointments, at least to the extent of restricting them to non-medical graduates. It must be recognized in this connexion that a hospital pathology department is not merely a factory churning out thousands of reports on blood and excreta. The members of its staff have also duties as consultants on clinical problems; they may need to interpret the results of their tests in the light of clinical findings or to suggest other investigations; and in connexion with bacterial infection they are now often arbiters of therapy in which clinical factors have to be considered in making a choice.

Medical knowledge is often valuable and sometimes essential for this kind of thing.

If the proposals about medical scientists seem somewhat extravagant, those for technicians, who also figure largely in the report, are almost incomprehensible. There, the same complaints are made of over-specialization and lack of training facilities, and a plea is made for "a more broadly trained and more versatile class of technician." Table III lists 18 classes of technician and the following text specifies 7 more, yet it is apparently seriously suggested that "although the whole range of hospital technical work could not be undertaken by a single class of technician it would be possible for most of it to be covered by two or three classes in place of the present multiplicity of separate occupations." Apart from pathology, physics, and radiography, these include dental mechanics, electronics, photography, dietetics, orthoptics, audiology, the care of animals, operating-theatre work, and the use of a wide variety of highly specialized apparatus, such as that for electroencephalography, renal dialysis, and extracorporeal circulation. Post-mortem room attendants and staff operating sterilizers and disinfecters are not mentioned but could well be included in such a list. Any interchange between most of these occupations would simply mean retraining, and the suggestion of such versatility as would enable anyone to cope with half a dozen of them—except perhaps those involving the management of apparatus—is simply fanciful. The more senior staff are not interchangeable even between the four divisions of a pathology department.

The committee recognizes that under the Professions Supplementary to Medicine Act four classes of technicians are registered after suitable training and examination, but resents the assumption that these professions are separate. "It is the essence of our proposals that the professions should be brought together into one service." It seems to be suggested that the new national hospital scientific council should have power to change these arrangements, and one passage embodies a definite threat to undermine the authority of the Council for Professions Supplementary to Medicine should they fail to toe the line.

It will be evident that there are highly contentious features in this report. Many sectional interests are involved to which it will make a varying appeal. One response may be predicted with some confidence: it will be viewed with some disfavour by the hospital pathologist. He is in no need of a new "careers structure." He is supported by an admirably organized technical service, and the suggestion that this should be integrated in some way with others may well be resented. He will see little advantage in being physically associated with unrelated disciplines in a division of scientific services the head of which may apparently belong to any of its departments. His work concerns the welfare of patients so much more directly than that of any of his proposed associates that he may reasonably expect to retain independent control of his own department.

Relevance and Quality

The needs of underdeveloped countries will not be understood if they are defined simply by deficiencies in relation to technically more advanced countries. Failure to appreciate this has resulted in the export to them of inappropriate methods and equipment. Nor are the problems in a continent like Africa, for example, with its immense diversity of races, cultures, and resources, any less complex than they are in the richly historical environment of Europe.

If a country's development is to be anything but a mirage, it must spring largely from its own resources and genius. Educationists with experience of the poorer countries of the world have long accepted this view, though it has not always found fulfilment in practice for two main reasons. The first is that an institution in a developed country seeking to help one that is less technically advanced has difficulty in adapting its outlook while maintaining its standards. A university in Great Britain, for instance, can be presented with a dilemma when it seeks to establish a syllabus and hold examinations in association with a university college in a developing country whose needs and history are very different from our own. The second and complementary reason is that the inhabitants of the developing country, especially those who have been educated in a Western university, are apt to fear that a syllabus balanced to the needs of their own country may entail lower standards. In short, the task is to reconcile relevance and quality.¹

The need to keep this objective firmly in mind in Africa is evident from the 1967-8 report to the World Health Organization's Regional Committee for Africa by its Regional Director, Dr. Alfred Quenum.² Dr. Quenum notes that three new medical schools were opened in the year. They are at Conakry in Guinea, at Nairobi, and at Zaria in Nigeria. But the serious shortage of trained staff in many African countries is aggravated by shortage of people in training. Dr. Quenum states that at least 400 new doctors should be trained a year to attain the minimum objective of one to 10,000 inhabitants. Yet in 1967 only 189 students graduated from medical schools in the African Region, of whom 19 were foreigners. Likewise Chief Sir Samuel Manuwa, in his address published at page 634 of the B.M.J. this week, laments the "chronic shortage of trained manpower and of financial resources." According to

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Dr. Quenum “the present systems of medical education are insufficiently adapted to the work of public health in Africa.” He calls for innovation in new medical schools and changes in existing ones, saying too that “In the context of Africa it would be a grave mistake to continue setting up medical schools which are mere imitations or even poor copies of institutions in the developed world, themselves no longer adapted to the requirements of those regions.”

It is good to see this imaginative stimulus coming from the Regional Director, for medical teaching must evolve and change in Africa, as it is now doing in Britain. The medical needs of every country in Africa are different from ours here and different from one part of that continent to another. To train more medical auxiliaries, as he advocates, is not to devalue the medical degrees. It is to do something different, and there is a place for both. In an African country, as in Britain or elsewhere, medicine has to be fitted in with many other things, as Sir Herbert Seddon has emphasized—agriculture, animal husbandry, forestry, engineering. All these may make essential contributions to the improvement of health.

Variation in Psychiatric Diagnosis

During the past decade there has been an increasing interest in the problems posed by the diagnosis and classification of mental disorders. The World Health Organization in particular has been concerned to foster interest in this field, for it is responsible for the section on “Mental, Psychoneurotic, and Personality Disorders” in the International Statistical Classification of Diseases, Injuries, and Causes of Death. Ten years ago a W.H.O. Expert Committee on Mental Health emphasized the need for a “generally accepted system of statistical classification which allows data obtained by various investigators to be confidently compared,” and E. Stengel clearly outlined many of the difficulties in the critical survey of existing systems of classification which he carried out for the W.H.O. at about this time.1

The approach of the eighth revision of the International Classification in 1965 led to activity in several countries, and in the United Kingdom the Subcommittee on Classification of Mental Disorders was appointed by the Registrar General’s Advisory Committee on Medical Nomenclature and Statistics in 1960 to review the many issues involved. A by-product of the subcommittee’s deliberations was the useful Glossary of Mental Disorders published earlier this year.2 In 1964 the First W.H.O. Scientific Group on Mental Health Research gave high priority to the development of a classification of mental disorders which would be “internationally acceptable and capable of uniform application.” For this purpose the group specifically urged the undertaking of “studies of diagnostic variation between psychiatrists from different countries,” and shortly afterwards this objective was incorporated in a W.H.O. 10-year plan of research in psychiatric epidemiology and social psychiatry.

The first-fruits of this programme have now appeared in the form of an interesting monograph by Professor Michael Shepherd and Dr. John Cooper, of the Institute of Psychiatry, London, and Miss Eileen Brooke and Dr. Tsung-yi Lin, of the W.H.O. Mental Health Unit.3 These authors report the methods employed and the results obtained at the first of a series of international seminars held under the auspices of the W.H.O. and focused on the vexed problem of observer variation in psychiatric diagnosis. To examine this variation in more detail Shepherd and his colleagues presented the participants in the seminar with two types of material—firstly, a series of case-histories of patients suffering from various forms of the functional psychoses, and, secondly, a series of specially prepared videotaped psychiatric interviews. The participants’ responses were recorded on questionnaires designed for the purpose, and are tabulated and discussed in relation to the agreement and disagreement between them. While it was gratifying to discover a substantial measure of concordance it is inevitably the extent and causes of disagreement which command most attention. Here it is pertinent to recall P. D. Oldham’s comment on disagreement in the judgements of skilled observers—namely, that, “when the disagreements are qualitative, discussion will be fruitful if and only if a hypothesis about the likely cause of their disagreements has emerged from their separate judgements.”4

In this study an analysis of the recorded responses showed that there were three principal types of disagreement in observer judgement. These derived, firstly, from differences in clinical observation and perception; secondly, from variations in the inferences drawn from such observations; and, thirdly, from differences in the nomenclature and nosological systems employed by individual clinicians.

Inasmuch as these findings bear on the nature of the diagnostic process itself the implications of this study extend beyond the confines of psychological medicine. Though what J. G. Scaddings had called the “clinical-descriptive or syndromal” definition of disease is particularly appropriate to psychiatry, where objective criteria are all too often lacking, the role of clinical judgement is central to the practice of all branches of medicine. A. R. Feinstein has recently argued cogently in favour of the scientific study of the clinician’s function in medicine. With the intoxicating possibilities of the computer before us the experimental investigation of the diagnostic process could be a rewarding field of study.

Oil on Water in the Stomach

To the uninformed the stomach is a dilated bag at the proximal end of the gut which receives the initial impact of a meal, mixes it, begins to digest it, and then, like a passive hopper, feeds its contents into the small intestine. But this emptying mechanism is not so simple. J. N. Hunt has shown that the osmolarity of the fluid entering the duodenum considerably affects the rate of gastric emptying. To explain this he considers that there is an osmotic sensitive receptor within the duodenum. This mechanism can regulate the emptying of the stomach so as to prevent solutions with too high osmotic activity from entering the small intestine. Gastric emptying is also influenced by the pH in the duodenum, by the protein content of a meal, and by fat entering the duodenum. Furthermore, the stomach can discriminate between solid

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