MAN AND MEDICINE*

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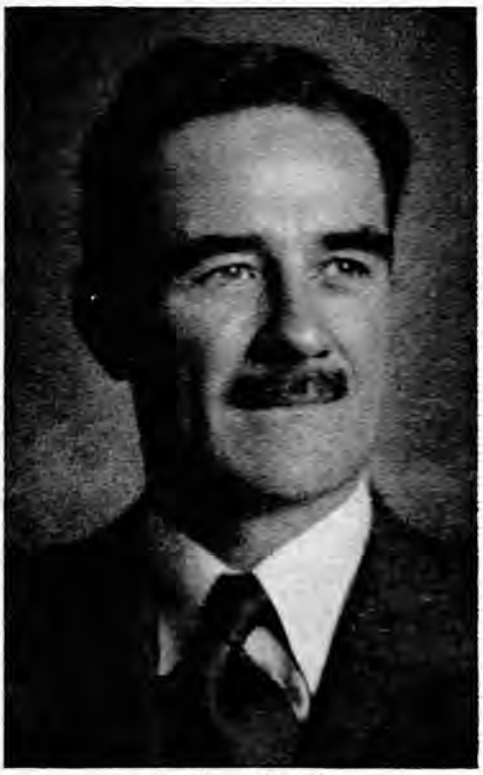
The title of my address (*Man and Medicine*) might be described by a bridge-player as 'three quick tricks'. I had decided to explore on the broadest possible basis relations between the public and the medical profession, with particular reference to improving the bases of mutual understanding and trust. At this early stage of my thinking I was asked by the Congress secretariat to give them a title at very short notice; hence the three quick tricks. I can discuss anything I like under this title.

You, We and Us

The audience tonight falls naturally into two sections which I shall refer to as *you* and *we*. *You* are the public, particularly in your capacity as patients or potential patients. *We* share this capacity with you since sickness and death come to all of us and to our families sooner or later. *We* are distinguished from *you, inter alia,* by two characteristics: Firstly, we are registered by the South African Medical and Dental Council as having a certain type and minimum standard of education and training, and are thereby entitled, by custom, to the courtesy title *doctor* — although many of us are not doctors in the academic sense. Secondly, we have taken a solemn oath to serve you and protect your interests. I shall return to this oath and its significance towards the end of my address.

I have to speak tonight as the representative of *we* to both *you* and *us*. This is a difficult combined task, because what I say to you may be regarded by my colleagues as platitudinous and boring. But I am sure they will agree that my more important task is to talk to you — to give a public address.

I have been given no mandate by my colleagues and no direction by the Congress Committee. Moreover, unlike a well-known personage in this country, I have no *direct line* so that if my colleagues do not agree with what I say I cannot claim that they are all out of step with me. I prefer to rely on the comforting thought that my colleagues are sensible men and women and that they will therefore almost certainly be in step with a sensible man like me. I propose to talk about *you* and *we* in three chapters. Although our deepest interests are never mutually exclusive, there are certain problems which affect your relations with us very directly, so that the public is commonly aware of them. These will be included in the first chapter entitled *You*. In the second chapter I shall discuss, under *We*, some problems which are commonly regarded as our own province. In so far, nevertheless, as they affect our unity and intraprofessional relations they affect *you* indirectly, and you should know something about them. The demarcation between chapters I and II is in any case hazy. This lack of definition leads naturally to a third chapter, entitled *Us*, in which I examine a few of the problems which confront *you* and *we* in the future.



Professor Brock

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CHAPTER I — YOU

(a) You and Your Medicines

I hope the scope of my title has not been interpreted in this narrow sense even though public attention is undoubtedly focussed on the high cost of your medicines.

This comparatively small problem is at present under consideration by a Government commission, but I think I am entitled to express my opinion even though it has not been sought by the commission. The problem cannot be examined except in the context of the spectacular recent advances in the number and effectiveness of therapeutic substances; the term drug is no longer appropriate.

The discovery of the sulpha drugs two decades ago ushered in a new era of *widely effective drugs*. The sulpha drugs alone revolutionized the treatment of pneumonia, septicaemia, childbed fever, cystitis, and many other common infective diseases against which there had been no specific treatment. The effect, in our own country, on morbidity and mortality from pneumonia among the Bantu mine workers, was spectacular.

In the two decades 1940 - 1960, during and after the second world war, the sulpha drugs were followed by the yet more spectacular antibiotics, starting with penicillin. These have brought the great majority of diseases caused by bacteria under effective control. There have been failures, such as the emergence of drug-resistant strains and dangers, such as the emergence of idiosyncrasy and even serious or fatal sensitivity reactions, but the net effect has been one of spectacular advance in the control of morbidity and mortality in man.

In the same two decades there has been outstanding advance in the development of endocrine preparations, including cortisone and other steroid drugs. There have been spectacular advances in drugs for the control of psychological illness and mental disturbances.

Referring to the *drug explosion*, an American writer estimates that even in 1957 there were in current use in the USA 140,000 medicaments of which some 90% did not exist 25 years previously. The cost of research, development, and sales promotion, has led to an alarming rise in the cost of medicines, so that today, even where patients can afford to consult a doctor privately, they cannot afford the medicines which he prescribes. This situation is under urgent review in many countries and in our own country a Government commission is preparing to report.

Those who support the state control of industry will of course say that the rising cost of drugs is the result of cut-throat competition which leads to a spiral of advertising costs and expense and entertainment accounts which seem to be inseparable from sales promotion in competitive commercial enterprise. The majority of doctors will probably agree that the expensive and beautifully illustrated brochures which pour onto their desks with every mail from the pharmaceutical industry, constitute an expensive luxury. They seldom contain any information which has not already appeared in reputable medical journals.

On the other hand, those who believe in free enterprise in industry and commerce will say that under state industry the initiative which has produced this spectacular advance in pharmacology would at least have been greatly diluted, if not absent, and that thousands or even millions of people who are alive in the year 1961 solely because of advances in therapeutics, would have been dead if the pharmaceutical industry had been state controlled.

This last thought must not be glossed over. There is no way of measuring the saving of life which has resulted from sulpha drugs and antibiotics alone. And further, in these days when time is the only limiting factor for our further development, we must be grateful for the saving of days, weeks, or even months of sickness and slow convalescence which has been achieved by using these same drugs. Much as I would like to see a reduction in drug prices I must record my conviction that when they are properly used they represent an extremely good financial investment.

(b) You and Your General Practitioner

This sub-heading to my talk brings us very close together because, when we and our families fall ill, we realize just as clearly as you do that nothing is more important to us at this time than the efficiency, sympathy, and kindliness with which our illness is managed. When talking about the importance of widening the sphere of medical practice to justify the term *comprehensive*, I never lose sight of the fact that public confidence in the efficiency and integrity of the medical profession will always be determined by the quality of service given by the individual doctor to the individual patient and his close family. This quality of service can only be provided when there is a basis of personal and mutual confidence between you and your general practitioner — preferably established through his long-standing knowledge and experience of you and your family.

Everyone is distressed at what appears to be a declining status of the general practitioner. If there is such a decline it is only in his reputation in the public mind *vis-à-vis* the specialist. I am convinced that there is no decline in his medical knowledge and judgment, nor in the wisdom of his approach to the sick patient in his own home. He has, after all, to pass scientific and professional examinations set by the universities and approved by the Medical Council at a standard which becomes higher every year. In addition, for the last decade, it has been required that he do a year as a hospital intern before being registered as a medical practitioner. At this stage, ordinarily 7 years after matriculation, his medical education and examination standard have been identical with that of the future medical specialist — a stage, which, in the parlance of modern medical education, is called *the basic doctor*. The course of the future medical specialist over the next 5 years will be described in the next section. It is rigidly prescribed by the Medical Council for each specialty. For the basic doctor who is to become a general practitioner, on the other hand, no further formal medical education is prescribed. Many general practitioners do indeed, for their own satisfaction, serve further hospital appointments before setting out as locum, assistant, or partner to gain the direct experience, judgment, and wisdom on which you will rely. The specialist has to work another 5 years, at least 3 of which must be in academic training, before he can be registered as a specialist; moreover, admission to the specialist register entitles the practitioner to charge higher fees. The public is therefore coming to think of the general practitioner as less efficient and less worthy of confidence than the specialist. The good general practitioner is, however, and I say this deliberately, often more efficient and more worthy of confidence than many immature specialists who, because they wear the blinkers of their specialty, cannot see the whole need of the patient and his family.

Everyone is agreed, nevertheless, that the *basic doctor* requires some further preparation for general practice. There are many opinions, however, on whether this *something else* should be obtained by modification of the existing curriculum before graduation, by some defined further education after registration, or by simple apprenticeship as an assistant, locum, or partner to an experienced general practitioner.

Dr. Fox, the distinguished editor of the *Lancet*, recently published a thought-provoking article in which he expressed the opinion that the day of the general practitioner has passed and his position can only be satisfactorily re-established under a new direction and under a new name. The name he suggested was *The personal doctor*. The College of General Practitioners of Great Britain and our local branch of the College of General Practitioners of South Africa have denied the need for any change of name and have re-defined the general practitioner as *a doctor in direct touch with patients, who accepts continuing responsibility for providing or arranging their medical care, which includes the prevention and treatment of any illness or injury affecting the mind or any part of the body*.

They may be right in their objection to change of name. The term *general practitioner* is so hallowed by tradition and should be so honourable a name that it may be right to retain it. On the other hand, the validity of Dr. Fox's criticism cannot be ignored. If the fault lies in the method of educating and preparing the general practitioner, then the necessary re-appraisal and revision of method and regulations will be prolonged and difficult. Perhaps the first step is to decide whether the revision should concentrate on the curriculum and training of the basic doctor, that is, up to the stage of his registration as a medical practitioner, or whether it should consist of something grafted on afterwards as some sort of equivalent of specialist training. The local branch of the College of General Practitioners has expressed an opinion in favour of the former objective and feels that the necessary revision should be achieved by incorporating general practitioners in the undergraduate teaching system. I am doubtful whether this can be achieved within the present six-year curriculum without sacrificing the standard of scientific education of the basic doctor, and therefore of medical science and medical practice as a whole, both immediately and in the future. Some people feel that a two-stream policy is required in undergraduate medical education — one stream leading eventually to the specialist register, and the other to general practice. This will, without question, establish an inferior status for the general practitioner for all time. It is my personal opinion, therefore, that, while introducing a more comprehensive philosophy into undergraduate education, this philosophy should be applied to the education of all medical practitioners in a single stream up to the stage of the basic doctor. I feel that the special needs of general practice should be catered for in some new philosophy and method of preparation for general practice applied after registration. To explore these problems the local branch of the College of General Practitioners has suggested the establishment of a coordinating body to represent the common interests of the College of General Practitioners and the Universities in medical education. This proposal has some merit if the College can be taken as representative of informed general practitioner thought. But, before any such consultation on method can be fruitful, the university medical faculties, as the bodies responsible for medical education, must settle the issues referred to above; namely, one-stream or two-stream revision of the undergraduate curriculum *versus* new postgraduate education. It is my personal opinion that the first alone, in either form, will be nowhere near adequate for our needs.

We must hope that a new education will solve some of the problems which lead to a sense of frustration among general practitioners. It is possible that we have made a mistake in South Africa in establishing the specialist register. Certainly we are wrong if we apply its regulations so that there is an implied stigma on general practice. If this is happening as many believe, then the answer is not to go backward, but to go forward. The general practitioner or personal doctor must become an expert in his own particular field; namely the day-to-day management of the more intimate aspects of the personal relationship between you and your medical services. This is the next step in our development. The new expert status should establish the old general practitioner as the personal or family physician.

The intellectual and temperamental qualities which will fit a young doctor for this new expert status of personal or family practice will be somewhat different from the qualities

required for all those specialties which are today recognized by the specialist medical register. A high intelligence quotient and the capacity to shine in competitive examinations will be less important than those high qualities of temperament and character which carry a man through the ceaseless grind of 30 - 40 years of continuous and devoted service to the welfare of the patient and his family. These qualities should in future be rated as high in the judgment of man as those which at present are necessary for admission to the specialist register. They should, of course, be fairly rewarded if we hope to maintain recruitment into this honourable specialty. Individual fees should of course be lower than in the specialties recognized at present, but the composite income of the general practitioner should not be much behind that of the specialist.

(c) You and Your Specialist

It is fashionable today in certain quarters to decry the increasing number and variety of specialists and to attribute the decline in the status of the general practitioner to this increase. This attitude of denigration of the specialist is as useless as the attitude of the historical King Canute who had his throne planted on the foreshore at low tide and commanded the ocean not to advance on the incoming tide. Specialization is the absolute prerequisite of advancing knowledge and efficiency of service. Medical science is becoming so complex and its application to medical practice so essential that it is no longer possible for any one man to be expert in the whole field of medical knowledge. Moreover, without research the practice of medicine rapidly becomes stagnant and obsolete, and no one can do medical research except in a defined specialty. There are at present 20 specialties recognized by the Medical Council. All but one of these requires, after the 7 years leading to basic medical registration, the passage of at least 5 further years of which at least 3 must be under academic instruction. The specialist in South Africa today has therefore never had less than 12 years of experience. Often the period is much longer, because the best specialists do work which will be useful to their future patients over and above the minimum required by the specialist register. The best of them undertake at least a few years of the immensely valuable intellectual discipline of research in the atmosphere of controlled scientific enquiry.

Few parents are today able to support their sons and daughters over the whole of the 10 or more years of study, especially as many of the budding specialists quite understandably marry before their period of apprenticeship is completed. How then are these many years of study financed? The first 6 years up to University graduation still have to be met by the self-denial of parents or through scholarships or loans or by earnings in vacations and evenings. During the year of compulsory internship before registration and for the eighth and ninth years there is no difficulty for the young doctor to earn his own way provided he remains unmarried. During the last 3 years, the embryo specialist, who has been selected by a long series of competitive examinations and appointments, is admitted to the ranks of the trainee medical specialists who are ordinarily registrars in the teaching hospitals. At this stage the salaries are generous. These appointments, therefore, constitute (in effect) valuable postgraduate study bursaries. The competition for them is keen and highly competitive, and those who are responsible for selecting candidates for appointment regard it as an onerous duty to ensure that zeal, industry, and success in the study and application of medical principles are rewarded appropriately. In my opinion the medical student should ordinarily remain unmarried, and during his year of internship he should be married only to his job. For the next 5 years up to his specialist registration there is no reason why he should not marry provided his wife is prepared, with her young family, to stand patiently on the touch-line encouraging, sympathizing, and sustaining. Her husband will devote the last 3 years of his training to a specialist apprenticeship which demands most of all 7 days of the week and much of the nights as well.

When he has at last qualified for admission to the specialist register he has some difficult choices to make. He can put up his plate at once as a budding medical specialist and hope that his professional and personal qualities will slowly attract to him the attention of some of the general practitioners who were his student contemporaries some years ago. These are the years of privation, hopes, and fears which will end in success for some and failure for others. Those who fail must choose another specialty in which competition is not so keen or must go into group general practice in which their specialist training will be of special value to the team. Alternatively, the newly-registered specialist can apply for full-time posts on the staff of hospitals where remuneration will be considerably less than in private practice, but will include the rewards of security and the knowledge of valuable service to the sick poor. The best among the young specialists will go into academic practice as members of the full-time staff of teaching hospitals attached to medical schools. This is the peak of achievement for the specialist with a scientific outlook. Before he embarks on a successful appointment in this field he needs, however, to spend some years in the atmosphere of clinical laboratory research and of these years at least one and preferably more should be abroad. South Africa is still too small a country to provide all of the 12 - 15 years which are required for this professional achievement. The scientific and clinical training provided in the South African medical schools may be as good as in most parts of the English-speaking world (I believe that in many specialties it is), but the young academic specialist, who is to take the major part in the training of future generations of medical students, requires the broader outlook on science, life, and affairs which comes through rubbing shoulders with, and sitting at the feet of, many more experts than South Africa can at present provide.

(d) You and Your Public Medical Officers

The majority of my audience tonight probably obtains most of its medical services on a private fee-paying basis from the general practitioners and specialists whom we have just been discussing.

But you must remember that you represent, in this respect, a very small proportion of the population of the Republic of South Africa. Probably 90% of that population, and perhaps 50% even of our enfranchised population, cannot afford to get more than token medical services on a fee-paying basis, even with the aid of medical insurance. Their medical services must come, therefore, through salaried medical officers.

Here we enfranchised South Africans are faced with a story of which we must at one and the same time be proud and ashamed. On the one hand there is no doubt that our much-maligned country is providing more and better medical and social services to our indigent sick than has been provided at any time in the history of the African continent. This statement is true whether we consider the services of the colonial governments to their territories or those of the emergent African states. On the other hand, our services are totally inadequate for the needs they seek to serve. The squalor and misery of sickness among rural underdeveloped peoples is less clamant and piteous than that of the slums of an industrial community. The heart-rending misery of our urban clinics and hospital outpatient departments demands a far greater effort than we have so far made. This effort must include not only curative services on a far more generous scale, but also an entirely new approach to the problem of raising living standards and providing the simple necessities of nutrition, housing, and hygiene. In this latter respect our profession must be the conscience of the nation, since we see the facts and the issues every day in their stark and ugly reality.

The overall health policy of our country is channelled from the Minister through the Secretary for Health who is also the Chief (Medical) Health Officer. He administers most of his responsibilities through regional deputy chief health officers who in turn are responsible for district surgeons and health officials. Most of the members of the privileged group represented among us tonight seldom even hear of district surgeons except in connection with inquests, and when we have indigent employees. We should know, however, that at least in theory, every indigent person is able to appeal to the district surgeon for medical advice and treatment without fee if he is unable to afford a doctor or to reach a clinic or hospital.

The State Health Department is also responsible for communicable diseases, including tuberculosis and venereal disease, and for the operation of many public-health measures. In larger urban areas, however, local authorities undertake on a financial refund basis, the responsibilities of the Government in respect of communicable disease.

The next big group of public health medical officials are those who are responsible to the Administrator of each Province through the Director of Hospital Services. As the Director's title indicates, their sphere of responsibility is in hospitals. The Director exercises his jurisdiction mostly through the medical superintendents of hospitals and their staffs. In all but the hospitals used by the medical schools the medical staff, both specialist and general practitioner, give their services free or for a nominal honorarium to the hospitals in their area. It is difficult to estimate the monetary value of these honorary services throughout the country. Our hospitals would rapidly be bankrupt or our taxes would go steeply up were it not for them. When you are tempted to grumble at the heavy cost of your private medical services, never forget that in paying these accounts you are subsidizing the medical care of the indigent, who, in this context, represent from 80 to 90% of the total population of the country.

In the case of the provincial hospitals used by the medical schools for student training, agreements have been entered into in the Cape, Transvaal, and Natal between the Provincial Hospitals Administration and the university medical schools for the establishment of salaried joint medical services. These high-cost, high-quality hospitals have become the recognized consultant services in all intricate and highly specialized types of medical investigation and treatment for the whole of the provinces they serve. In fact, they give better diagnosis and treatment in complicated cases than can be obtained by the most wealthy through the facilities of private practice. This arrangement has enabled both parties to the agreements to provide a quality of medical care and medical education as good, probably, as anywhere in the world. But its cost and the growth of this cost is becoming a serious embarrassment to the Provincial Administration. It has highlighted the potential monetary value of the honorary services given to hospitals elsewhere in the provinces.

Your third group of public medical services includes those administered through their medical officers on behalf of municipal and divisional councils. In the bigger centres these local authorities undertake as has been recorded above, on behalf of the State Health Department, the treatment and hospitalization of communicable disease. In addition they are responsible for preventive clinics and the services of district nurses. These preventive clinics are best illustrated through those for pregnant mothers and newborn babies — the so-called 'well-baby' clinics. This valuable health-promotive service is, however, often largely vitiated by the fact that there are no well babies among the almost uniformly malnourished and consequently disease-ridden families whom they seek to serve.

The problem of the cluttering up of health promotive services by preventable disease is common to most of our health organizations. It affects the large consultant hospitals such as Groote Schuur most adversely. Outpatient departments, which were designed for consultant services, are overcrowded with indigent sick who need general practitioner services rather than consultant services. They cannot afford to get these services from private practitioners and are unwilling to seek them in outlying dispensaries and detached hospital outpatient departments. Their presence in such large numbers makes it impossible for our highly skilled and long-suffering specialists to give the quality of service which their training demands. At the same time they are expected to teach medical students. Our educational authorities and even our general practitioners are constantly slating them for their inability to give to our medical students more outpatient teaching, as opposed to inpatient teaching. The result of all this is a miserable state of overcrowding and long hours of waiting for patients and exhausting and unsatisfying work for our medical specialists.

The remedy for this situation is not easy until the general standard of living has been raised and until the central, provincial, and local health and welfare authorities have agreed to cooperate on a realistic basis towards rehabilitation and health-promotive services.

In the chaos of these outpatient departments it is a remarkable tribute to the efficiency and devotion of the consultants that they are able to maintain so high a standard of medical diagnosis and medical teaching. So high indeed is this standard that only the discomforts of overcrowding and the long hours of waiting prevent the majority of patients who can afford private consultation from adding their further numbers to the crowd. In spite of these discomforts the medical superintendent is constantly being told that patients are attending the outpatient departments of the Groote Schuur Hospital in chauffeured luxury cars. A word of tribute must also be offered to medical superintendents and their deputies for their efforts to alleviate conditions in our outpatient departments, which can only be really corrected by improved social and economic organization at the higher levels of government.

(e) You and Your Health-promotive Agencies

Time does not allow me to do anything more than mention the multifarious services received by our population through social-welfare workers, health and nutrition educators, health inspectors and sanitation engineers. Most of these are provided in consultation with public health medical officials, but responsibility is hopelessly divided between State, Provincial and Local health authorities. As a result services are sometimes duplicated; far more commonly the indigent person falls between two stools and gets the service he needs from neither. A special word must be said about the services of the State Department of Social Welfare. In theory its services are not medical, but in practice most of the people whose welfare it is seeking to promote need medical assistance, because they are malnourished or handicapped by the physical or psychiatric ill-health of the bread-winner. One example of the frustration and waste of effort involved in divided responsibility is seen in the field of rehabilitation. Badly needed hospital beds are occupied by patients who should not be in hospital, but who are too ill to send home because they need all that is involved in rehabilitation after illness. It is in the financial interests of the provincial hospital authorities to rehabilitate these patients in order to free the beds for more urgent cases, but the provincial authorities understandably take the view that rehabilitation is the province of the Government. However excellent the services of the staff of the State Department of Social Welfare may be in respect of healthy people, they are not orientated towards nor equipped for what we doctors understand as rehabilitation.

CHAPTER II — WE

(a) We and Ourselves

We have our intraprofessional problems of relations. These are legally governed by the South African Medical and Dental Council, but we prefer to manage our own affairs through our Medical Association with its Branch Councils and Federal Council. The difference between the Medical Association and the Medical Council is still not understood by the public. The Association is a voluntary professional body which is responsible, *inter alia*, for this Congress. The Medical Council is a statutory body which controls relations between the State with its body of law, on the one hand, and the medical profession on the other hand. In our less responsible moments we resent the obligation to pay an annual fee to the Medical Council, because we often feel that its income is more heavily expended on protecting the public from a very small percentage of unscrupulous doctors than on protecting the medical profession against a very large number of unscrupulous patients, who, in hard times, postpone the payment of their legitimate medical accounts until every other debt, with the possible exception of their benefactions to charity, has been settled. Nor does that Council, we often feel, protect us against an increasingly litiginous public, stimulated and abetted by a minority of commercially-minded, petty lawyers, who seek every unjust occasion to trump up charges of negligence against our colleagues whose only error has been the kindness of saving the patient the cost of confirmatory X-ray or other laboratory tests. In our more sober and responsible moments, however,

we recognize that the Medical and Dental Council is a necessary guardian of our good name as a profession.

Our Association's biennial Congress gives an opportunity for many informal exchanges of ideas and creates a venue for the Annual General Meeting. We can deal with our intraprofessional problems through these media in our own time, but I shall outline a few of the problems to you because their solution is essential for our proper services to the public.

First and foremost is the burning problem of relations between general practitioners and specialists. This has engaged the attention of our Medical Association for many years, and in one or other form is a world-wide problem. In South Africa these relations have been precipitated by the formation of the register of medical specialists which has established minimum postgraduate standards of experience and education for specialists, and authorized for them higher standards of remuneration per patient-visit. These authorized higher fees are still moderate if they represent a charge for the standard one-hour consultation period compared with an average 20-minute general-practitioner visit. The public must also realize that the majority of consultants do far more honorary or *pro deo* work at hospitals than do general practitioners. Their fees include a tax on you for this *pro deo* work to the less privileged.

The real chafing point, however, in relations between general practitioner and consultant is not fees, but a supposed inferiority of status for the former implied by the specialist register. I have suggested a remedy for this in another section.

Another problem among ourselves is the need for preserving a unified approach to the patient as an individual so that he does not fall between two specialist stools. Every specialist knows, at least in theory, that no matter how small a part of the patient's body may be embraced by his own specialty, what he observes in looking through *his* small hole may be an expression of some general disease affecting many parts of the body. In practice, however, there is a danger that he may lose contact with this reality. The obvious solution to this problem is to maintain the status of the general practitioner as the chief medical adviser to the individual or to the family. Patients who go to specialists without consulting their general practitioner do so at their own risk. However, for the patient to go always through the general practitioner to the specialist is neither practicable nor desirable if the purpose of the specialist visit is obviously for limited and local opinion, e.g. to obtain spectacles for the almost universal middle-aged decline in near vision which we call presbyopia. If the patient does go of his own initiative, and without reference to the general practitioner, to the wrong specialist, the latter may re-direct him to another specialist, but is much better advised to refer the patient back to his own general practitioner for coordination of investigation. Patients should themselves insist on this if they value the continuity of knowledge and the breadth of perspective which a good general practitioner represents. The latter may then refer the patient, if consultation is needed, to a specialist physician. The scope, functions and competence of this type of specialist are widely misunderstood by the public. This misunderstanding arises to a considerable extent from what the Americans call semantics, i.e. the exact meaning of words and terms.

In Great Britain the specialist physician is called a consultant physician because, in theory, he consults with the general practitioner. This desirable preservation of consultant status has, however, gone by default to a large extent even in Great Britain where Harley Street consultant physicians see many patients in their rooms without reference from a general practitioner. This deterioration in the ideal service is almost unavoidable under conditions of modern urban organization where patients often lose continuity of contact between themselves and general practitioners. In South Africa the process has gone even further and the only necessary insistence on consultant status by specialist physicians is that they should not visit the patient in his own home except in consultation with the family's general practitioner. Good specialist physicians in South Africa nevertheless observe the very desirable courtesy, even when they have seen the patient directly, of writing a full report to the patient's general practitioner. In America the process has gone further still and the specialist physician, who is there called a specialist in internal medicine, or internist (not intern), is threatening to displace the general practitioner as the first or primary medical adviser to the individual. This process of supererogation can be defended up to a point in so far as it establishes a higher standard of education and professional competence for the patient's primary medical adviser. It can, however, only be justified if this new species of *internist-cum-general-practitioner* does in fact take the wide responsibility for the patient and his family over that long and continuous period of time — which is the essence of good medical practice. The American system has solved the semantic problem referred to above by defining the field of the specialist physician as *internal medicine*. This important and essential specialist may have an even more highly specialized field of special competence and research endeavour, e.g. hearts or kidneys or livers, but he retains a holistic approach to the interrelated workings of all these internal systems. I am often amused to hear my specialist physician colleagues in private practice in South Africa referred to by patients as heart specialists. The specialist physician is indeed a heart specialist for patients who have heart trouble, but the same man is a kidney specialist for patients with kidney trouble and a liver specialist for patients with liver trouble. It is indeed proper and in the interests of the patient that physicians should continue to be expert in all these and other fields of what the Americans rightly call internal medicine. There is no place for heart specialists who are interested only in the heart. Keep out of their hands except in a large consultant hospital where they have a valuable part to play in a team. Go, if you want a good opinion on your heart, rather through your general practitioner to a mature specialist physician who will see your problem as a whole, including your fears, your anxieties, and your bad habits.

And remember that the questions he asks you are more important than what he hears through his stethoscope, and even more important than the strip of paper that comes out of that highly polished electrocardiograph. This latter tool is of limited value outside a research department in spite of the veneration accorded it by both the public and the profession. Without mature wisdom in its interpretation its records can be horribly misinterpreted.

Two other spheres of intraprofessional relations which the public may profitably understand are relations between private practising and salaried doctors and relations between the administrative and professional branches of the profession. The chafing point in the first relationship is primarily in the social field. Private practising doctors often earn a larger total remuneration than salaried doctors and their wives spend more on new clothes for Congress and fripperies in ordinary life. The wives of salaried doctors are often envious. Salaried doctors, however, sometimes have easier hours and more freedom in the evenings and week-ends. A notable exception to this general rule is to be found in the case of full-time academic clinical staff in a teaching hospital, who work harder than anybody I know for a very modest salary. The social results of inequality of remuneration sometimes obtrude themselves upon the peaceful fraternity of our profession, but in the end the salaried doctor has some compensations in the form of a pension. I have never analysed the distribution between the grants from the Medical Benevolent Fund to the widows and dependents of private practising and salaried doctors, but I suspect that the former would be in the majority.

In the general field of relations between private practising and salaried doctors, the general hospital of my own medical school, Groote Schuur, is a representative microcosm. In every department and ward of the hospital, full-time and part-time medical practitioners rub shoulders with each other with mutual respect and advantage. In this regard I think that our microcosm is more successful than that of our wealthier brethren in the Transvaal, for example.

With regard to relations between the professional and administrative branches, I can again quote the admirable, in my opinion, example of our microcosm at Groote Schuur Hospital. A weekly meeting between the heads of the professional divisions and the medical superintendent is carried out, invariably with the utmost amity and goodwill and to the effect of solving many points of possible friction at all levels of

the administrative and professional service to our patients. Again I might cite the excellent and harmonious relations which have been built up between the hospitals department of the Provincial Administration and the University of Cape Town through personal contact between our full-time Dean and the Director of Hospital Services. Our full-time Dean is an administrator, but he is in daily contact with the needs and aspirations of the leaders of professional and academic thought in the medical school and the hospital.

(b) We and Our Families

Those of you, and there will be many in this audience, who are the wives or families of doctors, are probably deeply indebted to some of your husband's colleagues for free medical advice and treatment given unselfishly and without question on request. You may have noticed some reluctance, nevertheless, on the part of your doctor husband to make such requests to his colleagues. If, like me, your husband is a full-time salaried medical officer, you will probably have noticed that, other things being approximately equal, he prefers his family to draw on the services of his full-time hospital colleagues. This is quite understandable. All of us, moreover, whether or not we are engaged in private practice, have probably had occasion to be very grateful for the very generous service given to ourselves and our families by our public hospitals at very modest charge.

(c) We and the Politicians

The general subject of relations between politicians, medical civil servants, and the medical profession has been dealt with recently in a challenging address from the Minister of Health of the United Kingdom to the British Medical Association and known as the *elephant and whale Winchester address.* Winchester refers to the division of the BMA to which the address was given. The other eponym derives from Mr. Powell's opening paragraph which runs: 'An alliance between the elephant and the whale is found neither in proverb nor in nature, for they are animals which belong to different elements.' As far as medical civil servants are concerned, they are men in whom training and practice have promoted very different habits of thought from those commonly met among politicians. In a Ministry of Health he believes that the best compromise is that of parallel medical and administrative staffing of the department 'which projects the boundary line right into the councils — one might even say right into the mind — of the politician himself'. This has been South Africa's way with varying degrees of success. Powell regards it as essential to smooth and efficient working, that the medical officials in the Ministry of Health should remain in tune with the profession outside and as fully representative and characteristic of the profession's outlook and mind as can be devised.

(d) We and the Pharmaceutical Industry

In an earlier section I referred to the alarming rise in the cost to the public of drugs. Another aspect of the same problem is exercising the medical profession particularly. Each effective new therapeutic substance is now submitted by the pharmacological research divisions of the drug companies to endless modification of the effective basic nucleus with a view to obtaining a product which has the same or better effects at a smaller dosage and with fewer uncomfortable side-effects. The possible permutations of a complicated organic drug nucleus may run into hundreds. Each variant which appears to be promising is quickly marketed under a trade name peculiar to the particular drug firm which has produced it. The unfortunate medical profession is faced with new drugs every month, sold under different names by many pharmaceutical firms. The average doctor is not competent to assess these rival claims and even those clinical scientists who do research work in a particular field would require a year or two of intensive work to decide whether the claims for even one new drug are borne out in increased effectiveness to the patient. The drug firms in their fierce competition are forced towards more and more intense sales promotion. They now employ doctors as medical representatives and require them to call on their practising colleagues for exchange of information, although not for sales promotion. It is difficult enough for a medical professor to find time to be courteous to an army of pharmaceutical salesmen when they are not his colleagues. When they are medically-qualified colleagues, his position sometimes becomes embarrassing. However correct the approach of the travelling medical representative may be his clinical colleague suspects that his salary may eventually depend upon successful sales promotion.

The difficulties inherent in relations between the medical profession and competitive pharmaceutical industry can and must be adjusted to the satisfaction of both sides. The debt of the public and of the profession to the ethical pharmaceutical firms for their large part in the spectacular advances of our times is very great. These firms support, in their own laboratories, and by benefaction to medical schools and research institutions, a large volume of fundamental research in physiology, biochemistry, pharmacology and other branches of the medical sciences. The contributions of their scientific staffs have been recognized by the highest award of a Nobel prize. This activity has become an essential part of the advance of medical science, which would be much impoverished if it were withdrawn. The ethical problems involved are not insoluble and are in no real sense different from those involved in private or fee-paying medical practice. If they are frankly recognized and critically examined they can be satisfactorily adjusted.

(e) We and our Security

Our Medical Association has been engaged for some years in a review of the bases of private-paying practice. Briefly, an ever smaller number of the public are able to pay private fees for the whole of their medical services. This arises from the growing scientific accuracy and complexity of medical diagnosis, the growth of specialization and the cost of therapeutic substances. It is all a natural and inevitable result of the advance of the physical and biological sciences and their application to medical practice; it is a world-wide phenomenon.

In our own country we have attempted to meet this situation by the institution of more and more small medical aid schemes which seek, by refund of some 60% to 70% of the patient's medical expenses, to keep the cost to the patient manageable while retaining the undoubted advantages of private practice. Most people, if they can afford to do so, prefer to select their own doctor, to remain free to consult another doctor if they have not established the relationship which they value with the original doctor, and generally to feel that they are not beholden to him for charitable services. The plain fact of the matter, however, is that this relationship with your doctor, when not backed by some insurance scheme, becomes financially ruinous if you have a serious or prolonged illness. The medical aid schemes are undoubtedly very successful in meeting this situation. The time has come, however, to apply the scheme on a wider and more unified basis, and our Association is in the midst of negotiations towards this end. These negotiations have had their ups and downs. I do not intend to discuss them because there are many members of the Federal Council of the Medical Association here who are far more competent than I am to do so. My contribution should I think be in outlining some of the international background to our local situation.

In this country we have drawn and are still drawing our medical traditions from Western Europe and especially from Great Britain and Holland. Increasingly, however, we are influenced by that great English-speaking offshoot of Europe, the United States of America. Great Britain introduced, a little more than a decade ago, a revolutionary new approach to the provision and financing of medical services. This is known as the National Health Service and is part of the 'cradle to grave' Security State. It is no secret that the service was introduced against the wishes of the British Medical Association which, quite justifiably and understandably, wanted to maintain the high principles of medical practice which were traditionally associated with private practice. It has of course been said that the British Medical Association was acting as a trade union in defence of the financial interests of the medical profession. I do not think that this charge is just. The medical profession of Great Britain, as a whole, stood to lose and has lost comparatively little financially through the National Health Service. The specialists of Great Britain have lost little if any-

thing at all. It is the general practitioner who has lost much of the legitimate pleasure and pride of his profession in the impairment of his personal private relations with his patients. He has also less liberty of movement to change his place of practice. His chief complaint, however, is that he has been reduced to the status of a health clerk dealing with larger numbers of patients than he can possibly handle efficiently, filling in endless forms in triplicate, and making returns on printed forms. But on the credit side he can now dispense to his patient any medicines that he thinks reasonable without fear as to whether the patient will be able to afford to purchase them. The 1/- dispensing charge is a burden to the patient only in the lowest economic groups. For his middle-class patients he can get laboratory, radiological and other consultant services whenever he thinks these are in the interests of the patient's welfare and without counting the cost. Again, on the debit side he is besieged by unscrupulous patients, to whom it never occurs that to cheat the Government is immoral, e.g. to prescribe on the free dispensing list, cotton wool and other illicit luxuries for cosmetic purposes and for little Johnnie's hobbies.

I have not made up my mind about the National Health Service of Great Britain. It is neither wholly good nor wholly bad, and history alone will judge whether the final balance is on the credit or debit side. But I am sure that it has turned out better than the British Medical Association feared. I am sure that the majority of British taxpayers would vote enthusiastically for its continuation. I suspect that the great majority of the medical profession and the British Medical Association itself would vote for its continuation if it came to a showdown.

At the other extreme the United States of America clings tenaciously to private medical practice. The American Medical Association has looked closely at the British National Health Service and does not like it. This of course is to be expected in a country where private enterprise on a competitive basis is a national philosophy. But the American public is becoming increasingly restless at the mounting cost of medical services which are quite ruinous by any standards known to us in South Africa. The Democratic Government and its predecessor the Republican Government have warned the American Medical Association that they are killing the goose that laid the golden egg and that the government will have to intervene with some form of National Health Service or insurance if the situation is not corrected. A great deal has been done through insurance, as in the Blue Cross and Green Cross systems, but there is still a very big gap to be filled between the cost of medical services and what the average citizen can afford.

Returning to our own problems in South Africa I would like to suggest a little perspective. Pressing as the problems of private practice and medical aid schemes may be, they are parochial; they apply to less than 10% of our population. For the remaining 90% there is little doubt that for many decades to come the major part of medical services will have to be provided on a salaried basis. I was, for 15 years, a medical professor in Cape Town with private consulting practice and for 10 years I have been a full-time salaried officer. I am more than content with my present status although, like everyone, I should be pleased to have a more generous remuneration.

The joint medical service, established as a partnership between the Cape Provincial Administration and the University of Cape Town to provide salaried medical services for Groote Schuur and some related teaching hospitals, has in my opinion been an unqualified success. It has led to the growth of a quality of medical service, teaching, and research which can hold its own with most parts of the world. In my own department alone there are twelve full-time salaried specialist physicians of whom any medical school could be proud. We value greatly the different approach to our clinical problems furnished by our part-time colleagues who engage in private practice, but we would not change places with them. We have excellent facilities for scientific research, we can practice medicine in a way of which we can be proud. We believe that we are inculcating a spirit of scientific enquiry and of unselfish sevice which the traditions of our medical school demand. I am not being comparative; I would not like to see the whole staff of our hospital on a full-time basis, but I believe that our present mixture of full-time and part-time salaried medical officers is a great success.

(f) We and Our Medical Education

In my introduction I referred to the educational standards laid down and enforced by the South African Medical and Dental Council. As one who has spent most of his life in medical schools, I must comment at once that the Council's standards are minima rather than optima. Every self-respecting medical school prides itself that its standards are in most respects higher than the minimum standards of the Council. Mine certainly does. In any case our registration is only our starting point for acquiring the wisdom of medical experience on which you depend so much in times of sickness. Like all wisdom this is a compound of knowledge, experience, and character.

The world of medical education is full of discussion of changes in the curriculum. The medical councils, both in South Africa and in Great Britain, have scrapped the fairly rigid curricula which they previously laid down and have left the medical schools open to carry out whatever experiments are thought to be desirable in modification of the curriculum. There have been two international congresses on medical education.

All of this has been forced upon us primarily by the rapid expansion of science and the increasing application of the physical and biological sciences to the problems of medical diagnosis, research and treatment. As a result the 6 years of study is being surfeited with an ever-increasing volume and complexity of advancing scientific knowledge. It is difficult to prune the body of professional knowledge which already filled up the 6-year curriculum several decades ago, much of which still seems to be necessary for successful medical practice. The medical student of today is therefore threatened with acute mental indigestion. At our medical school we have applied a holding device, pending further study, by a blanket resolution that nothing further may be added to the syllabus without eliminating old material occupying a corresponding amount of time. In my opinion this pegging is right, but it cannot last; we must introduce the fruits of advancing knowledge. Why can we not eliminate a lot of dead wood from the past? We can, but it must be carefully done for reasons which are connected with our medical history.

Man's relations with reality, time, and eternity, as expressed in his superstition, mythology, philosophy, and religion, have always been influenced and often determined by his moods. His temperament is predetermined to a large extent by his inherited nature (i.e. the particular constellation of genes and chromosomes which he inherited from his father and mother). But the moods, which are grafted on the foundation of his temperament, are often influenced and sometimes determined by his physical health, unless he learns through education, philosophy, and religion to control and rise above them.

It is therefore understandable that medical service has slowly evolved out of the priesthood. Our body of medical history traces this progress back for 5,000 years or more. In South Africa we have the remarkable position that all the stages of this 5,000 years of evolution are represented among our people. Our Bushmen, who have hardly yet evolved from a Stone Age culture, are still at the stage of primitive folk-lore and herbal traditions passed on by the elders of the family group. Among our Bantu the medicine man represents both the priest and the doctor, until urbanization turns him into a simple charlatan selling bits of rhinoceros horn, herbs, and foul concoctions in the market places of our cities. Among our relatively advanced Cape Coloured people 'Malay tricks' still have a firm hold on the fears of sick people. I was informed just a few days ago by an old Cape Coloured woman, whose popping eyes were obviously caused by thyrotoxicosis, that someone had been getting at her with 'Malay tricks'. Even among our supposedly advanced Whites, ideas and superstitions just as primitive are commonly encountered, and the most absurd cults and nostrums are still firmly believed in. We ourselves are not entirely free from these superstitions: even if we laugh as we do it, we still insist on 'touching wood'. Even if we rationalize about the possibility of paint or a brick dropping on our heads, we still refuse to walk under ladders.

It is natural, therefore, that in this early stage of our emotional evolution the practice of medicine must still be primarily an art and a craft, and every medical student must be prepared for it by apprenticeship under the precepts of wise clinical teachers who do not learn the art from their scientific teachers. Psychology is beginning to be the science of the human mind, but it is still only scratching the surface of the complexities of the human temperament and the obscure evasions of the human mind.

Even if our medical students must still be prepared through the old tried method of apprenticeship, they must nevertheless also be trained to apply the advances of medical science to improving the accuracy of diagnosis and the effectiveness of treatment. For this evolution they must be given a thorough grounding in scientific method and critical reasoning; alternatively they become the slaves of tradition and the dupes of sales promoters.

How then is all this new knowledge to be fitted into an already overcrowded curriculum? The answer in essence is to concentrate on important principles and eliminate unnecessary detail which clogs the memory and distracts it from the appreciation of principle and the application of critical judgment. Moreover, one of 3 fundamental changes will have to be applied. The first, which I have already expressed an opinion against, is to introduce a two-stream policy of medical education, i.e. separate streams for the future general practitioner and for the future specialist. A second possibility is to lengthen the undergraduate curriculum say from 6 to 7 years. The third is to recognize that at the end of the present 6-year curriculum, followed by a compulsory year of internship, we have produced only the basic doctor who has then to receive further preparation for the practice of medicine. This further preparation has already been applied to the training of the future specialist. In an earlier section on 'You and your general practitioner' I have urged that some suitable equivalent be applied to the postgraduate training of the basic doctor before he is accepted as a general practitioner.

I believe that a choice between these basic principles is essential before we consider further modification of the syllabus. When the choice has been made in principle, revision of the detail of the curriculum will be comparatively easy.

(g) *We and Our Commitment*

This brings me back to the second characteristic which, in my opening paragraphs, I claimed as distinguishing *we* from *you*, namely that *we* have taken a solemn oath to serve and protect *your* interests. We carry out this oath imperfectly, but most of us never forget that we have sworn it. Listen to some of its terms. Our university medical school requires its successful graduates to subscribe on oath to a modernized form of the classical Hippocratic Oath and invites them also to repeat aloud the Declaration of Geneva. This takes place in a dignified ceremony on the day before graduation in the presence of the senior teachers of the medical faculty. Your future doctor pledges himself *to consecrate my life to the service of humanity . . . for the good of all persons whose health may be placed in my care and for the public weal.*

In another place under the title 'The doctor and humanity' I have drawn attention to the fact that he also pledges himself *to respect the secrets which are confided in me* and that this pledge may on occasion put him in the unenviable position of being liable to imprisonment. For the common law throughout the English-speaking world holds that the doctor must disclose the patient's admission when put under oath in a witness box. Fortunately, judges and advocates respect this dilemma of the doctor and seldom, if ever, force the issue to a showdown.

In the same place I have pointed out that we in South Africa have a special responsibility for the ethics and high ideals of our profession, because most of Africa has no inherited capital of faith, morals, or ethics.

CHAPTER III — US, WHAT OF THE FUTURE?

Medical science has made the most phenomenal advances in this half century. Physics and chemistry are being applied to biology and to the problems of life to an extent that, as a student, I would never have dreamed of. The electron miscroscope has opened the detailed minutiae of the structure of a single living cell almost down to the level of the individual molecule. Hundreds of new enzymes are being discovered, absence of any one of which may account for individual idiosyncrasies in metabolism which up to a decade ago were wrapped in mystery. We shall soon understand the nature of the difference between inert substances and unicellular organisms. The study of viruses and their metabolism is rapidly closing this gap in our knowledge.

The bacterial diseases and most of the parasitic diseases are increasingly being brought under control through the development of new antibiotics. Although there is still the menace of the emergence of drug-resistant strains, the staphylococcus is, so far, the only important bacterium which repeatedly escapes from new antibiotics. The viruses have so far not come within the control of antibiotics. They are likely to have a greater adaptability than bacteria and parasites in producing drug-resistant strains.

Infant and child mortality has been vastly reduced in the privileged nations and could be similarly reduced in our own community if we organized ourselves better. The high mortality which still prevails among our underprivileged groups could be slashed by the provision of a higher standard of living with resultant better nutrition and hygiene.

The prevailing allergic disorders, most of which are more of a nuisance than a threat to working capacity and life, are being extended by what we now call the auto-immune diseases, many of which are life-threatening. Some of the latter are moreover caused by hypersensitivity to recent antibiotics and chemotherapeutics.

The psychosomatic disorders are almost certainly on the increase and are greatly complicated by the increased pace of organized urban life and the stresses and strains which are inseparable from that life.

Our chief killers today are the degenerative diseases such as cancer and arteriosclerosis. Cancer has been tackled energetically in medical research for several decades with disappointingly few results. Arteriosclerosis has been tackled only in the last decade. The statistics of World War II showed that economic privilege, through some combination of unwise eating, stress and strain, and lack of exercise has led to recent increase, at least, in coronary heart disease. This trend should be neutralized in the course of the next decade by advancing knowledge. By that time we may again be thinking of arteriosclerosis as an inevitable process of ageing or we may possibly have found ways of postponing its inevitability to the extent of a further increase in life expectation.

However, these spectacular advances have opened a new problem — the population problem. It would appear that medical science has over-reached itself. The application of nutrition and hygiene together with the advent of antibiotics and some other drugs effective against bacteria and parasites has led to something that can only be called a population explosion. Up to 1900 population growth throughout the world had only been very modest. War, famine, and disease had acted as effective brakes. Suddenly, through the advance of medical science, the brakes have been withdrawn. If the rate of population growth of the last few decades is extrapolated forwards, the present 2·8 billion of world population will be 5 billion by the end of the 20th century and 10 billion in a hundred years' time. The most serious aspect of this problem is that the population explosion is unequal in its effects on the various races and classes of mankind. In general the privileged and educated groups have accepted that the virtual elimination of infant and child mortality brings a responsibility of family restriction. The underprivileged on the other hand, and particularly the illiterate masses, continue to multiply while medical science saves an ever-increasing percentage of their unplanned children. Have we created a Frankenstein monster of population growth with our advances in medical science, or can man learn to control his destiny? I am known to be interested in clinical nutrition and comprehensive medicine and am frequently told that the population explosion and the resulting population maldistribution between privileged and underprivileged races is the fault of people like myself. I never take this charge seriously, nor can any thinking man. Advances which have led to the population explosion and maldistribution are in themselves good, just as the development of atomic power is good. What is bad is

that man's emotional and spiritual development and his sense of responsibility are lagging far behind his intellectual achievements.

Although we have learnt so much about the biochemistry of life in the individual cell we are still only scratching the surface of knowledge. We know virtually nothing of the complex integration which directs and coordinates even the simplest multicellular life. The coordinated function, the reflex activity and motivations of the higher mammals are still wrapped in mystery. And what an enigma, still, is man himself. What is the health which the medical profession is seeking to give to mankind? Is it simply the harmonious working of the biochemical systems of body metabolism which we are rapidly coming to understand? Certainly, such harmony is the basis of bodily health, but will it, of itself, achieve happiness? Experience suggests strongly that this is not so. Is there any health apart from happiness? What is happiness? No doctor can avoid asking himself these questions as he faces the issues of birth and death.

Our scientific methods give us no clue to whether the difference between man and the higher animals is one of quantity or of quality. Those who accept, as I do, that there is a fundamental difference in something which we call the soul, do so by an act of faith and not on any scientific evidence. Truth, beauty and goodness are fundamental to man's satisfaction and central to his need. The solution of their mystery can be approached in a spirit of critical enquiry, but the media are not measurable in grams, millilitres, or units of energy exchange. The only acceptable media are humility and self-knowledge and care for the welfare of others.

I hope that what I have said may contribute something to a spirit of understanding and trust between *you* and *we*. I hope that the understanding and trust will, in turn, contribute to ever-higher standards and traditions in *our* medical services.