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President's Address

REFLECTIONS ON MEDICAL PRACTICE

BY

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Within my lifetime medical practice has been completely transformed. Progress in fundamental science and the development of technical skill in its application have changed the whole aspect of the venerable structure of empirical medicine which I explored as a student, and radical reconstruction has been necessary in many directions. It is not of these things, however, that I propose to speak on this occasion. The new knowledge, the new drugs and techniques, enable us to do much more for our patients: these things make our lives more interesting and satisfying, and we are grateful if at times uneasily aware of the difficulty of keeping pace with all of them.

My purpose is to direct attention to the increasing responsibilities that society imposes upon its doctors and to examine some of the consequences that may flow from a wider range of medical activity.

A Duty to Society

Early in the nineteenth century Jeremy Bentham conceived the idea that medicine had a duty to society as well as to individual patients, and he is the spiritual father of Preventive Medicine as it was developed by Thomas Southwood Smith, Edwin Chadwick, and John Simon. Despite their work it was not until 1899 that an Infectious Diseases Notification Act was approved, and it is salutary to recall the spirited resistance to it from those who believed that it infringed the passage in the Hippocratic Oath which proclaimed that whatsoever a doctor saw or heard in the course of his profession should not be published abroad.

Although the opposition to the notification of infectious disease now seems to us a little peculiar it was probably based on the same jealous, but not unhealthy, instinct to preserve the traditional relationship of confidence between a doctor and his patient that has stimulated criticism of much medical legislation in the past fifty years. However that may be, there is now no doubt that a doctor in clinical practice encounters types of responsibility which were never contemplated by Hippocrates, nor by the statesmen who advised her late Majesty Queen Victoria. His primary and ineluctable duty to ensure the best possible investigation and treat-

ment for his patient remains, but, in addition, he must often decide whether or not the issue of a certificate is warranted to obtain pecuniary benefit from the State or to justify absence from work; in many ways the doctor has become a custodian of part of the public purse, a sort of State almoner. Authority, not unnaturally, insists on supervision, so the cost of prescribing and the number of certificates become subject to comparison with the average of an area and a matter for inquiry if either appears to the Minister to be unreasonable.

It is not surprising that novel disciplinary checks of this kind caused resentment in many members of a profession bred in a long tradition of individual freedom, but I see no escape from them so long as a Welfare State remains the ideal of society.

We may justly plead, on the other hand, that administration should be flexible and tolerant and be guided by those who have first-hand knowledge of the difficulties and problems of practice. To a considerable extent, and particularly at certain levels, this has been achieved by the work of this Association and by the co-operation of doctors in the activities of executive councils, regional boards, and hospital management committees. It is disconcerting nevertheless that a general impression prevails that problems of policy tend more and more to be determined by officials in the Ministry of Health who know little of the stress of clinical work and less of the human problems inherent in it. Is it improper in me to suggest that those in official positions at the Ministry might be refreshed by quitting the shelter of Savile Row to share, from time to time, the perplexing duties of a doctor in clinical practice in hospital or in the home?

The Supreme Problem

But contemporary domestic difficulties, important though they sometimes seem, are trivial in comparison with the supreme problem that now confronts the world—the danger of atomic war. Four years ago Lord Adrian, in his presidential address to the British Association, said bluntly that our fate was now squarely in our own hands, and he stressed the urgent necessity for increased knowledge of how the mind of man could be influenced to avoid the catastrophe of conflict. With great authority he pointed out that it was not likely that the most detailed knowledge of brain

physiology would help mankind towards living more peacefully, though it might achieve clearer heads and a more even temper. Our knowledge of human behaviour is based on simple empiricism, and there is a clamant need for the branches of social science to make dispassionate studies of what actually happens in human societies. In Lord Adrian's judgment these large-scale investigations were too important a plant to be left in the hot-house atmosphere of research institutions and Unesco teams, and he made a plea for the recruitment of more social scientists in the universities and added the critical comment that their methods were not yet sufficiently objective and precise.

With all that Lord Adrian said I think we would agree, and when I read his speech I wondered whether medicine had not a duty to take some part in the study of the most urgent problem of our day and generation. For, surely, there is no group of men better equipped and more advantageously placed to contribute to this work than the family doctors of this country. They enjoy the trust and confidence of the vast majority of their patients: the nature of their work admits them to the most intimate aspects of family life, often over long periods of time. They are already aware of many of the motives that determine human behaviour in society, but their knowledge is rarely recorded in permanent form and dies with them.

For this misfortune there are several reasons. In the curricula of most medical schools little attention is given to the functions of medicine in relation to society. The dramatic success of scientific methods in the treatment of individuals appeals to the young, and in teaching hospitals absorbs their attention so exclusively that they tend to ignore that large part of clinical practice which is not measurable in terms of science and which often has no relation to organic disease. The recent revision of the Recommendations of the General Medical Council will enable Licensing Bodies to amend their curricula if they wish, but to avoid any misunderstanding I feel it necessary to say that for my part I would not sacrifice the rigorous discipline of fundamental science in the training of medical students, because it constitutes the firm foundation for future progress and stimulates a critical approach to the problems that confront us. Opportunity should be found, however, to encourage students at some stage to examine the wider functions of medicine in society.

Signs of Renascence

The principal factor that limits any activity by practising doctors in this direction may be simply stated. Most of them are too busy and lack the leisure that is essential to independent thought and fruitful investigation. Despite this difficulty there are signs of a developing renascence of family practice, and we should pay tribute to the remarkable achievements of the College of General Practitioners in recent years. I suggest to the members of that College that they should consider an approach to university departments of social science to examine the techniques that have been developed for the study of human behaviour and the methods for recording information in forms suitable for analysis and in the hope that co-ordinated research may be established.

When I submitted the first draft of this address to the Editor of the *British Medical Journal* he was good enough to send me a report from the *New Scientist* (June 5, 1958) of a lecture by Canon Raven as Visiting Professor of the Philosophy of Science at the College of Medicine of the University of Cincinnati, Ohio. I quote a passage: "I should like to see the province of medicine extended; I should like to see certain departments of the great profession equipped to study the diseases of corporate life. I believe there is room here for the application of precisely the same skills in diagnosis and treatment which the social worker does not have and which the medical man does. I am not depreciating the work of the social worker at all. But I am suggesting that between sociology and medicine there might well be established the same sort of unity which has been established between psychology and medicine."

Canon Raven was particularly concerned with such things as mass hysteria, the ethics of advertising, and the publicity which established enthusiasms with so little factual basis. These are large and important problems admittedly, but I doubt if they are the most suitable for first attempts in joint research. It might be better for us to begin with humbler topics, and I suggest a few at random.

Topics for Research

There has lately been considerable controversy about the eleven-plus examination. Some have contended that the success of a child in gaining admission to a grammar school when its brothers or sisters fail may lead to intense and disintegrating stress in a family, and for this reason plead that all schools should be comprehensive. Is it true? I believe that family doctors could well supply the information necessary for rational policy. What exact knowledge have we of the effects of the employment of married women on their children and their homes? And who could supply more reliable information than the doctors of those families? Does moderate consumption of alcohol and tobacco contribute to the peace and happiness of family life or the reverse?

In a recent book Lord Pakenham reviewed the evidence on which we base our opinions about the problems of juvenile delinquency and criminal conduct. He found that there was very little factual information on which we could rely: opinions were often conflicting and little was done to establish truth. Has not medicine something to contribute in this direction? Family doctors see the delinquent from his birth: they are familiar with his environment and often with his descent.

Study of these matters and many like them might yield information of great practical importance, and in my judgment we, as doctors, should welcome any opportunity to take part in them. To be of value, however, such studies must be serious and not casual, and I fear they are impossible for most doctors in the present conditions of practice. Lists are too large and leisure too restricted to permit sustained effort, but it might be possible for this Association and the College of General Practitioners to find ways and means to sponsor a preliminary trial of a scheme for joint research by a team of family doctors linked with a university department of sociology, and it would be an interesting experiment.

Adventure of this kind, a study of human behaviour in society, would surely restore interest in another problem of fundamental importance which we share with the whole company of thinkers and which medicine, absorbed in the application of its new therapeutic resources, has neglected of late. What is the nature of man? How should we regard the individuals who consult us?

It is a hundred years since Charles Darwin published *The Origin of Species* and about forty since we became aware in this country of the work of Sigmund Freud, and I am fully conscious, like William James, that every opinion must be forged in the face of stubborn and irreducible facts.

The Basis of Continued Life

The broad conclusion from biology is that man to-day is what he is as the result of evolution, natural selection, and the invention of conventional speech and of symbols such as numbers and formulae which not only record and store his past experience and achievement for the benefit of future generations but also bring order to his conceptual thought and enrich it in every field of activity—in literature, art, mathematics, and science. To that we may add that all life depends on green plants, including, of course, the algae of the seas, for they furnish the food of animals and so the nourishment of man. Plants alone seem able to fashion the stuff of life—proteins, sugars, and fats—from stable inorganic material in the air and soil with no other help but the light of the sun. This wonderful photosynthesis is the basis of continued life, and not unnaturally it has been studied diligently. What seems to be emerging is that there

are chemical and physical phenomena common to the activity of plant, animal, and human cells, and much that is now mysterious will become clearer when we know more of the exact role of nucleic acids in living processes.

Man, it seems, is one with nature—not merely with the organic nature of plants and animals but also through photosynthesis with the inorganic world—he has emerged from it and belongs to it. Fifty years ago that opinion had little to support it. Physics and chemistry then were widely separate subjects and there was a gulf between the organic and the inorganic. Pasteur in the 1860's had shattered the hypothesis of spontaneous generation, and we believed that all living things came from living forebears. So, indeed, they do. But was it ever so on this planet? The atmosphere in which we now live is very different from that which surrounded the earth when it first revolved upon its orbit, and it is conceivable, nay almost probable, that conditions may then have favoured the formation of the protein molecule, the stuff of life, from inorganic material in a manner that would be impossible to-day. The identity of man with nature I do not find discouraging; he remains a manifestation of the creative energy that formed the cosmos, and each of us may be, as Rupert Brooke thought, a pulse in the eternal mind, no less.

If we admit the truth of that opinion, are we committed to the belief that all human conduct is determined by forces beyond the control of the individual; that we are passengers in the evolutionary car and have no say in its direction? The irrefutable facts to which I have referred suggest it may be so, and to these might be added the evidence from genetics, for it seems certain that the limits of personal potential are set by genetic constitution, though accident and environment may restrict or encourage its development.

Human Behaviour

Has clinical experience anything of value to add to the discussion of this problem? There are facts in medicine that appear to support the full determinist position. As physicians we are familiar with the disorder of behaviour and the deterioration of character that are a consequence of acquired pathological lesions or inborn errors of constitution, and we are tempted at times to believe that human personality depends solely on physical conditions. But the fact that in some cases disease overwhelms or distorts an individual does not prove that personality is determined by physical processes alone. On the contrary, is it not general experience that patients show an astonishing variety of attitude and response to illness? Many who are crippled by injury or disease radiate happiness and energy and accomplish much, while others in identical conditions give up the struggle and become a burden to themselves and their kin. This is the common stuff of our daily work, and surely it encourages a belief that free will and courage are not illusions and that to each of us falls the duty of choice in our behaviour. The Freudians to account for such variation in conduct invoke the subconscious, but, important as that may be, I am still persuaded that conscious resolution plays as large if not larger a part.

It may be argued, justly, that research by scientific method is still in its infancy and that as it proceeds it will win knowledge of material processes that determine human behaviour. Equally true is it that research may also reveal much about the self-conscious human individual which defies explanation in measurable terms of matter; the curious sense of guilt, for instance, and the inhibition which have no parallel in animals.

Whatever the future may hold I think it is fair to say categorically at the present time that our scientific knowledge does not warrant the assertion that human life is entirely determined by physical factors, though their influence is great, and our daily work as doctors intimates the existence of free will and the capacity for choice, which in some inexplicable way have "emerged" in the course of the evolution of a self-conscious human being.

My friend Professor Roy Pascal, with whom I discussed this matter, reminded me of *Dichtung und Wahrheit*, the autobiography in which Goethe made a determined effort to define the factors that had influenced him and made him what he was. At first he seems convinced of the dominance of the material: he even says at the beginning that if he had been born a year or two later he would have been a different man. Yet as he proceeded he became more and more impressed by the unpredictable element in his personality and life. In the last book he refers to it frequently. He calls it the "daemonic" element which surged up within him, involuntary and unaccounted for. "It was like chance, since it evinced no sequence of causality: it resembled Providence, for it hinted at coherence."

Conclusion

If, as I believe, we may properly at the present time act on the assumption that man is something more than a completely determined animal, an important conclusion about medical practice follows. The relationship between doctors and their patients is deeper than that entailed by the solution of scientific and measurable problems: it is in truth a personal relationship in which intuition, sympathy, and compassion play a considerable part. To avoid any misunderstanding let us acknowledge that most of the manifest achievement of recent years has been due to distinguished work in basic and clinical science, and that it is our responsibility to encourage all such work and to accept its verified conclusions, but we must never forget the large part of clinical practice which depends on qualities that science cannot yet measure and possibly never will.

Our duty is clear; we have to put at the service of the patient, when it is necessary, all the resources of scientific investigation and treatment, but, in addition, we have to maintain in him the personal interest and concern of a friend.

SITTING, STANDING, AND WALKING*

BY

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It must be clear that what has so far been said about the orientation of the body when attempting to sit might well be repeated for standing, and indeed for any activity in which the individual desires to assume a definite relationship with and towards the outside world; there is therefore no point in repeating all this to serve the same purpose. I propose, therefore, to consider the mechanism of standing upright and how this is upset in such interesting syndromes as the drop attack and syncope.

As in any postural activity, the peripheral mechanism is primarily of reflex order—simple stretch reflexes which are modified by the afferent nerves from neck muscles, vestibular organs, eyes, and so on. It is of interest to mention the important driving function of the muscle spindles and the so-called servo mechanism described by Hammond, Merton, and Sutton (1956), who have given a far-reaching explanation of continued smooth-muscle contraction at the tonic level and the part played by the cerebellum in this mechanism. This is discussed below, after some of the clinical cases have been considered.

*The second of two Oliver Sharpey Lectures delivered before the Royal College of Physicians of London on February 11 and 13, 1958. The first lecture appeared last week at p. 63.