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THE PLACE OF BEHAVIOURAL SCIENCES IN MEDICAL EDUCATION

by

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Mr. Chairman, Ladies and Gentlemen, I would like to join with you in a few thoughts about this topic and I would like to start by reminding you that in our field we fully share the same problems that all our colleagues do in medical schools; and this is the enormous and rapid increase of knowledge in the different sciences related to medicine. We are constantly confronted with this in the medical curriculum because we know that our colleagues would like to teach "real" biochemistry, but nowadays it takes three years to begin to be a biochemist; and the physiologists are always a little impatient with our medical students, they too would like to turn them into physiologists; this also is a task of at least three years. They would really like to have them for five or six years studying physiology and it is the same with anatomy, the same with pharmacology.

Those who take their subjects seriously are so conscious of the enormous amount of knowledge required to master each subject that they find it very hard to tolerate giving our medical students only a little insight into each of these difficult fields.

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But is it very different in the field of human behaviour? I think, if anything, it is worse, because these are enormously rapidly expanding subjects. We talk so easily about giving our medical students "some insight into normal human behaviour" as a basis for their future study of pathological behaviour. But what a very big risk that would be, if we really undertook it seriously! Frankly, I do not know any medical school in the world that does take it seriously. We talk about teaching our students normal psychology, but if we start to set out to learn psychology thoroughly, how many years do we need of full-time study? At least three, and even then you are just a beginner in psychology. It is almost as if we persuaded ourselves by a process of magical thinking that a little homeopathic dose of psychology will be enough to make our medical students understand normal psychology, and they would need more homeopathic doses of sociology to enable them to understand the society in which they are going to practice.

That sounds a very gloomy prognosis and yet the very magnitude of this problem fills me with a certain degree of hope because some of the most intelligent of our fellow teachers are in the basic sciences, people for example like Kornberg in Stanford University, where the medical students have the privilege of being taught biochemistry by a Nobel prize winner. I have seen him teaching their first year medical students with his coat off and his shirt sleeves rolled up in the course of biochemisty and he showed me how he set about it in a very short time. He gave them a very brief introduction, indicated some textbooks and then started the class off in groups of eight on extremely complicated experiments, experiments that would last ten weeks, step by step. Of course, he is in a privileged position with many instructors so that each group of ten may get advice from an instructor. But he dropped them in at the deep end with this experiment. In order to carry out their task they had to go to the textbook, think and find things out for themselves; and at the end of their ten weeks they suddenly realized that they had learned a great deal about how biochemists think, how biochemists work, though

none of them had the slightest misconception about his being a biochemist. On the contrary, it was just opening the door and showing a whole area of knowledge, and before the end of the course Kornberg hoped to convey another message, to let the students know how they could learn from biochemists and how they could go on learning from books when they needed it, when their curiosity was aroused by a clinical problem.

It seems to me that he was setting a pattern for all the basic sciences contributing to medicine, by not attempting to cover the whole field but introducing the way of thinking, the type of data, the types of observation of his discipline and inoculating the students with an experience of working in that frame of reference. Another thing, of course, is that he had the courage to leave a great deal not taught. This is the courage which so many of us lack. We are so anxious to teach everything. I find it happening in my own clinical teaching, in my own pre-clinical teaching. There are so many areas that we could cover. Can we dare to leave some out, to leave some for the student to discover for himself when the need arises? I think we have really no choice about this. The reality of the situation imposes that we have to leave a great deal not taught. We have to be selective. We have to teach methods of thinking, methods of enquiry and we hope in that way, to introduce the student to our field.

Let us think for a moment how this works in practice. If we turn our attention to basic knowledge in understanding human behaviour, in many medical schools we have done a little teaching in normal human behaviour, usually very little indeed.

Two years ago I made a survey in the United Kingdom of all our medical schools, and I found that the main hours of teaching in behavioural sciences were fifteen hours. One school had no teaching whatever. I am sure that in other parts of the world too there is a great range in the amount of time given to normal psychology and normal sociology; and in quite a lot of instances, no time at all. But let us suppose that we are granted a little time to begin with. The WHO Expert Committee on

Under-graduate Teaching recommended a basic minimum of forty hours for normal psychology, twenty hours for sociology. What are we going to do with that minimum time? Well, I am quite sure that we have got to select a few topics and try to teach them well rather than take the whole of those vast subjects and teach them very little about them. Let us remember that one danger we run into is that because human behaviour is something we all participate in and human psychology again is a part of us all, many of our colleagues seem to think that it is only a matter of common sense. "I am a psychologist", say some professors of medicine; "I know the society I live in", say some professors of surgery, and our own students and colleagues sometimes share this illusion, that because they are speaking, thinking (some more, some less), and taking an active part in the society to which they belong, that therefore they know about their own psychology and about the structure of society.

Of course, common sense is not a guide to scientific understanding. If we relied on common sense, our common sense would tell us that the world is flat, and our common sense would tell us that the moon is bigger than the stars. We have to beware of the evidence of our common senses!

We have to be equally wary in psychology, perhaps even more so because one of the great legacies of Freud was to teach us that our introspection deceives us a great deal of the time. The scientific study of psychology enables us to guard ourselves against the errors of subjective perception.

When I think about a limited forty hours, how would I start? I think I would like to start by showing the students that it is possible to observe human behaviour in a somewhat objective way and I think ideally I would like to illustrate this from the beginning in a clinical fashion. Perhaps this is not too difficult; before long we may all be able to use videotape recordings of a clinical interview, which we can use as the introductory teaching experience. I am thinking here of an interview which the students would watch and then you discuss it with the students and say "now, what did you observe?" You show how it is possible to observe the patient's behaviour systematically; you point out that your interview with him has <u>not</u> been merely a conversation but is in fact a technical procedure.

Because talking is used in psychotherapy, some people think that it consists only in a sort of prolonged conversation between a doctor and a patient: but of course an interview is a technical use of talking between people. So one can point out what has actually been going on in this interview and analyse the interviewer's ways of eliciting relevant factors in the history, and indicate the systematic way of examining the patient's mental state. Here is a clinical instance of applying scientific methods to the interchanging between two people.

Having used the clinical illustration to excite curiosity, and to indicate the practical application of psychology, I would still have the problem of where to begin and which facets to dwell on in a short course. I am quite sure that I would like to begin with the biological determinants of the human behaviour. I would describe some genetic determinants and I would discuss what our colleagues in ethology have taught us about the observation of animal behaviour and the analysis of behaviour into little components which can be observed, noted and counted; and then I would describe some of the applications of ethology to human behaviour. Humans, as well as animals, have quite a number of innate patterns of behaviour which can be elicited by particular stimuli. Nowadays one can demonstrate this by the use of film - say of children at play - in which you can pick up and identify these behaviour units, or morphemes (to borrow a word from linguistics) of behaviour.

After indicating the biological determinants of behaviour, one turns to psychology proper. Here I think one has to indicate the major topics of normal psychology: physiological psychology, perceptual psychology, cognitive psychology, personality development. After a brief coverage of these major topics, one should pick out one or two of them for more thorough treatment.

The topics selected may well be determined by the teachers who are available. In a situation where there are very few psychologists but where you have a highly trained psychoanalyst, it makes sense to make personality development the area for special study. In another situation you might have a psychologist who can teach about perception in depth, and that is worth doing because again you can offer clinical illustrations of patients with disordered perception.

Social psychology, which bridges the interval between individual psychology and sociology, must be included in our teaching; but it is not so easy to know what aspects of sociology should be discussed. Here even the WHO Expert Committee offers us only twenty hours, and how much sociology can we teach medical students in twenty hours? Again, one has to be very selective and devote a little of that time to indicating the major fields of concern of sociologists in relation to human behaviour and then pick one of them and deal with it more thoroughly.

In most schools I imagine our preference would be to pick an aspect of sociology close to medical practice. I know that many schools choose the doctor/patient relationship as the paradigm of interactions in social groups. Quite a lot of schools take a slightly wider view and concentrate upon the role of the healing profession as one of the major institutions in society. This is rather good for students, because if we are not encouraged ever to look at our profession in a detached way, we take many things for granted. Why, even at my advanced years, when I worked on the the UK Royal Commission on Medical Education, suddenly I was forced to realize that our way of delivering medical care in Britain, which seems so inevitable to us, with family doctors in the front line, supported by consultants and hospital doctors, is by no means the usual way in the world as a whole. Our Royal Commission sent little groups to different countries and they came back describing many quite different ways of organizing basic medical care. This experience convinced me that the sociology of medical care was something worth bringing to the attention of the medical students, for the very practical reason that not only is there a diversity of medical care in the world to-day, but there is change. Even conservative societies like my own are likely to have adopted quite different forms of medical care in twenty years' time, and if our students had graduated thinking that there was only one way to practice medicine, they might become bewildered and resistant to change, instead of being able to participate effectively in the planning of new systems of care. These, I am afraid, colleagues, are very tentative thoughts but I look forward to pursuing them with you further in small group and plenary discussions.