

ANTHROPOLOGY IN MEDICINE

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Anthropology is the comparative science of man as a physical and cultural being. As such it more than touches medicine in all its branches at almost every point. Indeed, the relation has been reciprocal, for while anthropology has contributed much to medicine, medicine has contributed a great deal of fundamental knowledge to anthropology. The names of Paul Broca, the father of brain surgery, of Rudolf Virchow, the founder of cellular pathology, are familiar to every student of medicine; they are equally familiar to students of anthropology as among the great founders of modern physical anthropology. The names could be greatly multiplied, but history is not the burden of this brief paper. In this place, I should like to suggest that a knowledge of anthropology should form an indispensable part of the equipment of every medical man.

Any suggestion that another course be added to the already overcrowded medical curriculum will justly be viewed with alarm. It is a reaction which has my full sympathy. The first year, in which such a course would

logically function, is hard enough as it is without the addition of another course. Perhaps the answer is that anthropology should form a part of the premedical curriculum. My only objection to that is that there is a danger that the course might then be given by instructors who are not sufficiently familiar with medicine to make their exposition of the subject as apposite as the instructor in the medical school would be capable of doing. Where there is a will there is a way, and if a sufficiently convincing case could be made out for acquainting the medical student with the basic facts of the science of man, a time and a place for such a course could be found.

The greatest advantage of putting anthropology into the first year would accrue from the fact that it would tend to eliminate the partistic view which so many physicians take of the person. Anthropology is the one discipline best calculated to give the student a view of the person *as a whole*. A human being is not a potential or actual collection of disease entities. He is a total functioning being who from intra-uterine life to death is exposed to the conditioning effects of an enormously complex

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variety of environments. By his very nature he is never quite like any other human being. That, in fact, is what is meant by variability, the fact that no two things, not even so-called identical twins, are ever alike. The conditions of variability are, therefore, among the first phenomena to which the student should learn to be sensitive and to recognize.

In this respect, perhaps more than in any other, the physician, it must be frankly stated, among scientists, remains notoriously deficient. The social consequences of the ability on the part of the physician to recognize the variables entering into the causation of the disorders he is called upon to cure or to alleviate cannot be overestimated. Equipped with the necessary knowledge he would then be in a position to recognize, as Virchow did, that the health of the people is not so much a medical as it is a social problem. Furthermore, in treating the person (there is no such thing as an "individual" except as a statistic, a human being is a person) he would learn to look for causes in terms of necessary conditions, of which the most obvious are rarely the sufficient ones, which alone constitute the cause. In short, the physician who understands the nature of variability within the human universe will be a much better doctor than he who does not.

Towards this end an understanding of the elementary principles of human genetics is necessary, with the emphasis upon the fact that what a human being inherits, in addition to the basic instinctual needs which must be satisfied, are potentialities which always develop in relation to a conditioning environment. The

hereditary factor in many diseases is important. The physician must learn to recognize it, and at the same time he should learn that heredity is not necessarily the equivalent of predestination, that under the proper conditions many hereditary predispositions need never declare themselves. In the light of such knowledge, the physician should be taught to see to it that those conditions are provided which will diminish the expression of hereditary predispositions to disease. In the case of such disorders as most forms of diabetes, spastic paraplegia, Huntington's chorea, optic nerve atrophy, and more than a score of other sex-linked conditions, almost all of which are recessive, it is scarcely possible, short of expression. But even here medicine will never acknowledge defeat. The insulin treatment of diabetes has shown that what the heredity of the person may lack may be compensated for and complemented by artificial means. The treatment of hemophilia with Vitamin K is another case in point, and so is the group of Rh-hemolytic disorders of the fetus and newborn which the work of genetically minded serologists such as Landsteiner, Wiener, and Levine has done so much towards bringing under control, in the sense of saving so many infants who would otherwise die. The understanding of the genetic mechanisms of the disease I have named points however, in a direction for medicine which is not merely curative but which is, even more importantly, preventive. I mean something more than what is usually understood by preventive medicine.

With the steadily accumulating knowledge that we now possess of the

genotypically conditioned disorders, those disorders that will express themselves in almost any environment, it is now possible, in many cases to reduce their incidence by simple eugenic means. It should be possible to obtain fairly adequate genetic histories from most persons seeking to marry, and upon the competent evaluation of these, it should be practicably possible to advise such persons as to whether or not they should bear children. The physician should be possessed of the knowledge necessary to deliver not only children, but a competent judgment as to the desirability of children in the case of couples having unpromising genetic histories.

The physician need not stand helplessly by and see deformed and disordered infants born into families which become the tragic victims of their own and their doctor's ignorance. The physician can and should assume an effective role in preventing such situations. For such a role he can best be prepared in his student years, and there is no subject that can better introduce him to and prepare him for such a role than the study of man, the science of anthropology.

The problems of growth and development, of increase in size and complexity, physically and psychically, the meaning of racial differences, of constitution, maturation, sexual differences, and aging, are touched up-

on tangentially, if at all, in most medical schools. Such concepts as physiological, biological, and social time still mean very little to minds accustomed to thinking in terms of the second hand on the face of a watch.

The very consequential part which social and economic conditions play upon almost every aspect of the person's life history are still too largely neglected, in spite of an overwhelming amount of correlated data which abundantly prove the existence of these relationships.

I think of pellagra in this connection. Pellagra is usually regarded as a vitamin (B7) deficiency disease. It is, in fact, a socio-economic deficiency disease. The deficient diet is merely an effect of depressed socio-economic conditions. Above the poverty line pellagra is unknown. Hence, pellagra is best prevented by eliminating and preventing the occurrence of the conditions which produce poverty. Q.E.D. These are the kinds of problems which the physician must learn to consider as much his as are the diseases he is called upon to treat and which he should have helped to prevent. In this connection anthropology can bring to the growing student's mind the vision and the understanding necessary to the proper evaluation of his own role as a member of society, and the ability to see man in all his complexity and to see him whole.

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