SPECIAL ARTICLES

THE VALUE OF THE CLASSICS AS A PART OF THE STUDIES PREPARATORY TO MEDICINE*

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A LIBERAL EDUCATION PRE-REQUISITE TO PROFESSIONAL STUDIES

That men and women contemplating the study of medicine should first receive a liberal education will now scarcely be disputed by any one. Medicine, like law, has always been regarded as one of the "learned professions" to which a liberal education is a pre-requisite. To be able to understand, to convince, and to persuade one's fellow man, as it is the function of physicians continuously to try to do, something more than endowment by Nature is necessary: the intellect must be disciplined, the emotions must be schooled, the sympathies and imaginative powers must be developed, and what we mean by "will" must be educated. Successfully to practice medicine, we need to think clearly, to feel deeply, to strive earnestly. From early childhood on, it is desirable that the prospective medical student should strengthen his body, train his intellect, cultivate his better feelings, and steel his will so that he may come into possession of the knowledge and the character that will fit him for the work of his profession. Assuming a man born with a good brain, the more liberal his education, the more likely will he be to attain leadership in any profession that he enters. Now and again in the world's history, the attempt has been made to find some "short cut" into the medical profession, some "royal road" to medical learning. Such attempts have tried to justify themselves upon the ground that time might be saved, that less money need be spent, or that useless effort might be avoided. The results of such attempts have always been disas-

trous, not only to the physicians themselves but also to the standing of the medical profession and to the welfare of the public that the profession serves. No more lamentable example could be cited than that of the poorer proprietary medical school with low standards of admission from which we in this country have only just recently become emancipated. The pre-medical education was not liberal and the medical education was neither scientific nor practical. When we think of the professional inefficiency and of the narrowed horizons of the men who graduated from the worst of these schools, when we recall the injury done to our profession by the admission into it of ignorant and characterless members, when we consider what the public has suffered and in some instances is still suffering at their hands, every American must regret that some way had not earlier been found properly to select the medical students and adequately to protect both the public and the profession from men of poor training and of low ideals. Let us hope that the bars that have been put up may not again be thrown down. Even the scarcity of physicians determined by war will not justify the graduation of poorly or narrowly educated men. The happiness and efficiency of the doctor, the dignity of the medical profession, and the highest welfare of the public are dependent upon a liberal education precedent to the study of medicine.

WHAT CONSTITUTES A LIBERAL EDUCATION

If we are now in accord that the study of medicine should be undertaken only by men and women who have had the advantages of a liberal education, it is desirable that we should also reach some agreement as to just what it means to be liberally educated. It is perhaps not surprising that differences of opinion should exist here, for our personal bias may make us lean on the one hand toward tradition, or, on the other, toward radical reform. But, surely, a careful survey of the situation should reveal to us the essentials of a liberal education; and on these main fea-

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tures we may agree, even though a wide latitude may be permitted as regards details.

A liberal education consists in preparation for suitable participation in the activities that all educated men may share in common, whereas a special or professional education prepares for the activities of one special trade or profession. A liberal education is to be thought of as preparation for life as a whole, as fitting men and women while they live to be as useful as possible and to enjoy life as much as they can. In early childhood, nothing is more important in education than the encouragement of (1) the use of the sense-organs and (2) the use of language. Through the first the child learns to touch, to smell, to taste, to see, and to hear, and the effort should be made to train the attention of the child sharply to discriminate among his sense-impressions. Such discriminations will involve the use of exact terms in description, for otherwise it is not possible for the child to make others understand precisely what it is he wishes to say. In training a child to accurate observation and exact description, we cultivate in him, as Viscount Bryce has emphasized, two things that are "the foundation of mental vigor—curiosity, i. e., the desire to know—and the habit of thinking." If a child have a normal nervous system it can only be through neglect on the part of parents or teachers that he will fail to acquire a love of knowledge and a pleasure in using his mind. During adolescence, the mind should have the opportunity of becoming generally informed regarding Nature, man, and self. Knowledge of Nature, of the world outside of man, belongs to the domain of the physical sciences; knowledge of mankind and of one's self belongs to the domain of the humanities. A liberal education involves, on the one hand, training in the physical sciences of physics, chemistry, and biology as well as in mathematics upon which the physical sciences are founded; and, on the other hand, a training in the humanities—history, languages, literature, and philosophy. This much all will doubtless admit. Differences of opinion exist, however, first, regarding the amount of time and effort that should be

devoted, respectively, to the two great departments of knowledge—the realm of Nature and the realm of man; and, secondly, regarding how much attention in the realm of man shall be paid to the ancient languages and literature and how much to the modern. The time that may legitimately be allotted to a "liberal education" is necessarily limited. How shall we select the subjects? How shall we parcel out the time? Granting that one should not lay down any hard and fast rule that every student, no matter what his special gifts or inclinations may be, shall be compelled to follow, it seems to me that every young person who desires to be liberally educated should be informed of the main contents and should have had some experience in using the methods for studying both the subjects that deal with Nature and the subjects that deal with man. During school and college days there is time to become acquainted with them all. As Dean West has observed: "Mathematics and classics, science and philosophy, history and modern literature are the nobler sons in the household of liberal learning. To have known them all well enough to like them all, no matter which one we come to like most, is the best liberal education." We should neglect neither the physical sciences nor the humanities. We should learn all we can of both; the more we know of both, the more we shall be liberally educated.

THE STUDY OF THE CLASSICS AS A PART OF A LIBERAL EDUCATION

My thesis in a nutshell is (1) that students entering medicine should be liberally educated, (2) that a liberal education includes an education in both the physical sciences and the humanities, and (3) that an education in the classics—the Latin and Greek languages and literature—is an essential part of education in the humanities.

Before presenting the case for Latin and Greek, I must make a frank admission. To my sorrow my own education precedent to medical study was very limited as regards Latin and still more so as regards Greek. But the little I had has been of such real help to me that I have always regretted keenly the lack of more.

I feel it my duty and privilege to encourage young persons preparing for medicine to get a good grounding in the ancient languages and literature, for studies of the classics are helpful to the prospective medical student both for the mental training they yield and for their cultural value.

Most experienced teachers readily admit that an education in the classics is one of the best ways to acquire ideas regarding the nature and laws of language. To understand Latin, one must master Latin grammar, and once Latin grammar has been mastered one will have no difficulty with the grammar of any other language. For exact, concise, logical expression, Latin stands supreme. Greek, though less logical, is more sensitive; in the Greek language, one can briefly express shades of meaning that in modern languages can be conveyed in writing only in awkward and roundabout ways or in speech only by the inflection of the voice. Even a little knowledge of Latin and Greek is of the greatest help not only in understanding the terminology of science, but also in understanding the vocabulary of our ordinary life. The same knowledge lightens our task on taking up the study of French, Italian, or Spanish. Since language is necessary for thought as well as for communication of thought, studies that widen and deepen our knowledge of language are worthy of prosecution by the prospective medical student. As Dean Vaughan has well put it, the study of Latin and Greek compel the "habit of close observation, of attention to detail, of looking for fine distinctions and shades of difference, and the alertness of mind awakened in an individual by these habits prove of inestimable service both in his experimental work in the laboratory and at the bedside of his patient when he becomes a scientific medical man. * * * Carelessness and superficiality are incompatible with the thorough study of Latin and Greek."

The cultural value of a knowledge of the history and the literature of Greece and Rome, surely no really educated man will deny or underestimate. To their history and literature we must go if we desire to study the sources of our own life; without them we can have but an imperfect

understanding of our own literature, our own language, and our own ideals. To Greece we owe our principal literary forms, our fundamental ideas in science and in philosophy, and our standards for the recognition and enjoyment of beauty. To Rome we are largely indebted for our courts of law, our system of government, our institutions, our ideals of the family and of national life. The intellect of the Greeks and the character of the Romans are a priceless heritage. Let the modern world do its best to know them and to possess them!

It is often urged that all this cultural value of the classics can be obtained through the reading of translations and of books in English dealing with ancient history or with the thought and life of the Greek and Latin peoples. I think it is probably true that more people get the ideas they have of the literature and the civilization of Greece and Rome from books in English than from a perusal of works in the original languages. Even one who reads Greek and Latin easily and with understanding enjoys good translations. Because of his knowledge of the originals his enjoyment of Dryden's "Virgil," of Jowett's "Plato," of Jebb's "Sophocles" and of Gilbert Murray's "Euripides" will be all the keener. It is not necessary to know the Greek language to enjoy Gomperz's "Greek Thinkers" or Mahaffy's "History of Classical Greek Literature." But while the facts and the thoughts contained in ancient literature can be obtained in translations and in English treatises, it is not possible to translate the style of the originals. Horace has never been adequately translated and never can be, and this is true of the poets generally. Fully to enjoy an ancient author he must be read, not in English equivalents, but in his own words.

To summarize, finally, the mental training that the study of the classics offers, the cultural value of the great literatures of Greece and Rome, and the pleasure derivable from the reading of the ancient authors, especially the poets, in the original, make the inclusion of Latin and Greek, in any plan of education that may be called truly liberal, inevitable. The classical authors still possess their potency.

They can be the rigorous teachers to us that they were to Matthew Arnold, who, writing of them, said that they

"Seized my youth,
And purged its faith and moved its fire,
Showed me the high white star of Truth,
There bade me gaze, and there aspire."

For interesting matter on the value of the classics in education, the reader is referred to:

1. "Value of the Classics," edited by Dean A. F. West, Princeton, 1917, 1-396.
2. Viscount Bryce: "The Worth of Ancient Literature to the Modern World," *Fortnightly Review*, April, 1917, 551-556.
3. Livingstone, R. W.: "A Defense of Classical Education," London, 1916, Macmillan Company, 1-278.

DISCUSSION

Dr. W. F. R. Phillips, Charleston, S. C.—I am one of those who, having had some classical training before beginning the study of medicine, did not realize the difficulties that I would have encountered if I had not had that classical training; and later on I became one of those who went over more or less to the utilitarian idea of modern languages in preference to the cultural value of the classics, and was among those who favored the change in the rule, then common, of requiring Latin as a pre-requisite. I was one of those who urged that change when we were adopting, what might be called, our first common specific entrance requirements along about 1903, '04, '05 and later. I favored the utilitarianism of French and German and their substitution for Latin. After the change went through the place of Latin began to be taken by German or French. I did not notice for some years any difference in my students. They seemed to get along as well as previously. But since, in my experience, Latin has become a rare subject of study by the student, I have noticed a decided difference; and I think the reason I did not notice the difference at once was that for quite a while students continued to present Latin, not knowing that it was not an obligatory subject any longer. I am convinced now that the student who has had a classical training is more teachable than the student who has not had it. Modern language does not take the place of the classics and I think Dr. Barker has correctly stated why that is, namely, that in the study of the classics there is more mental exertion required. The student studying modern languages studies to learn to speak them, to use them colloquially, and is satisfied when he has the ability. But in studying the classics we did not expect to speak them, but we did wish to understand them; we wished to read them understandingly and discriminately; to get the philosophy of their construction. And so I think this all brings us back to the fundamental principle that what we desire in education is mental discipline, and the best studies for us are the studies that will give the maximum of disciplinary training.

Dr. George Dock, St. Louis, Mo.—At this time many very prominent educators are taking the ground that education should be made as easy as possible, as pleasant as possible, and as practical as possible. The remarks that were made on the previous paper in regard to the two years showed that we still need a rather closer comprehension of what the situation is. The most that Dr. Barker pleaded for, as I understood it, was a two years' college course, and after all the two years' course is practically a technical course, and as the average student goes to the medical school with that, whatever classical education he has depends on lucky chance. There are two features about the student that have not been sufficiently considered. One is in regard to the higher teaching, and Dr. Barker especially spoke of that. Many people have an idea because a man has spent three or four years instead of two years in college that he should have some sort of concession made to him. Men expect to have a year of credit or two years of credit for college work and in some schools, I am sorry to say, authorities are arguing the same way, but they are rather presidents or deans than medical teachers. However, a man who has spent four years in college instead of two should not think at all of cutting down his technical course. He should realize, he should know in fact, that after his course is finished he will more than make up for the time that he spent on any serious subject that he followed. We speak of it as a great hardship that a man should be kept up to twenty-six years of age studying medicine, and it is a greater hardship because with better preliminary training, a man could get through at twenty-five or earlier, but after all twenty-six is not all of life. Many people seem to think that they are to get all their education up to the time they graduate in medicine. Anything like carrying on that education after that seems to be out of the question. I think that that is a very serious mistake, and a medical man has to learn far more after he graduates than he did in his four or six years in medical school, and if he has the right sort of mental equipment it will be much easier for him to take advantage of the future than it would otherwise be.

Dr. Stewart R. Roberts, Atlanta, Ga.—Professor John Dewey, now of Columbia University, says that the value of the teacher in the school room is directly proportionate to the extent of his experience outside the school room. It seems certain that none of us would desire to lessen the training or equipment of any teacher, and likewise we should hesitate to lessen the training or equipment of any student. For the study of medicine the better the training, the larger the experience, the better the teacher, other things being equal. The more the previous educational training even to the A.B. degree, the better the student will be, and the more he will get out of his medical education, and the better physician he will be as a result. The sum of the whole matter is that the elevation of medical education is the salvation of medicine.

Dr. Barker (closing).—As to the length of time after a change made in education before its effects can well be judged, I think it always takes several years, as Dr. Phillips has said. It has often been said it requires twenty years to

test it fully. I must say that I am actually shocked at the kind of English that some of our medical students, even those who have an A.B. degree, are capable of using. Something must be done to better conditions. I am sure that all of you who are teachers must have observed the lack of thorough mental training that is so manifest. We must ferret out the causes of the deficiency and correct them. Personally, I am always glad when a man can have four years of college work before entering medical school. I do not say that the time has come when we should require that of every medical student, but I am glad when a man can have the full college course before entering medicine, and if my boy wanted to go to a medical school I should advise him to take the four years in college before entering upon medical studies. If I had to, I should try to borrow the money, even, in order that he should not be deprived of the great advantages that the college course would give him.

Dr. Roberts and Dr. Dock emphasized what it means to the physician to have the background of a liberal education. Merely technical education is insufficient for the highest work in medicine. The man as developed by general education behind the technical education counts fully as much as the technical education itself. The personality of a man who has wide interests, who knows about the world, and who has traveled in it, can go far toward helping men and women who are sick. To attain success in dealing with cultured and educated patients, the physician needs the kind of personality that will bring conviction, that will inspire confidence, and that will insure sympathy. That can only be developed fully, even with great natural endowment, through an extensive liberal education. Then, aside from that, aside from the fact that we have our patients to think of, I think the personal pleasures that come to the physician from such an education are not to be despised. As we pass middle life, especially, and through organization are able to throw some of the details of our work upon younger shoulders, there is great refreshment to be obtained by going back to some of the subjects we studied in our college days. I know a distinguished neurologist in New York whose hobby is translating Latin and Greek into English. He thinks this pastime much more fascinating than chess. As practitioners we have to make a living, but we also need to make that living as worth while as possible to ourselves and others after we have earned it.

I believe that many students could graduate with four years of college work at the time they finish the second year of college now. For they could be very much better taught than they are now. The chief improvement is, I think, to be made in the high schools, or preparatory schools; though, to a certain extent, time could be saved in the colleges themselves.

THE SENIOR STUDENT*

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In the issue of the *Journal of the American Medical Association* of February 3, 1917, there appeared an article entitled, "Teaching Internal Medicine: Each Student a Teacher." Briefly the plan was a round table idea for didactic teaching. Each student was given a subject which he studied, handed in as a medical paper, presented the subject orally to the class, and remained the authority on that subject for the year in the class. The sum total of these subjects constituted the outline for the course and the papers with their discussions the course itself. By this method responsibility was thrown upon the student; his ability to think, write, and express himself developed with the gain of his voluntary interest and enthusiasm.

This system has been extended to the clinical work with the idea of increasing the responsibility of the student, to the end that he might be teacher as well as learner, in order that his powers of observation, expression, reason, diagnosis, and judgment might be more surely developed. In Emory University the senior clinical work in the Department of Medicine consists of: (1) clinical clerk service, 10 to 12 daily; (2) ward teaching, 2 to 4 daily; (3) medical clinic, one hour, twice weekly. In the clinical clerk service the work consists of history-taking, physical and laboratory examinations. In the ward work a distinction is made between ward rounds, which are primarily for the benefit of the patient; and ward teaching, which is primarily for the benefit of the student. An intensive study is made of one or two diseases each period rather than a few minutes given to each of many patients. We have so many diseases in our clinical repertoire, and each new disease that the student learns is but

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