

THE AMERICAN HIGH SCHOOL VERSUS THE ENGLISH PUBLIC SCHOOL

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It was Addison, I believe, who made the remark that it is very melancholy to consider what a little negligence could spoil us, but what a deal of industry and toil is necessary to improve us. That the industry and toil demanded is great, surely none in this gathering is prepared to dispute. But on the nature of the industry and the kind of the toil necessary there will be as many different ideas as there are individuals here present. Indeed, since education first differentiated itself as a special human problem requiring special treatment and special thought, its concrete form has ever been one of controversy.

There has been controversy as to methods of instruction, the proper age for beginning it, the length of continuance, and above all, perhaps, as to the specific nature and proportion of the various subjects to be studied. These individual points of variance are, however, evidences of the real difficulty which lies in differing conceptions of what the education process shall accomplish. The rigidly state controlled education of ancient Sparta had in view the strength and glory of the Spartan State. The monastic schools of the middle ages had a no less definite aim and for them education was a tool by which the work of the Mother Church might be forwarded. Each perhaps owed its success in a measure to the recognition of the ends which it was to serve.

And so today we must define as accurately as possible the ends which we are seeking, else we shall wander far afield e'er we know it. Since I shall confine my remarks largely to secondary education, we may lay aside at once the claims of the specialist. His requirements are so exacting and extensive that they must be left for the universities to satisfy. What then should be required of a system of education in England and America today? These two countries have, I believe, fundamentally much the same educational need, namely, the need by a representative government of an interested, informed and

thinking body-politic. This, of course, does not say that each country has arrived at the same stage in the solution of this problem, nor that they will each necessarily arrive at the same or even a similar one. Yet, the general criteria for judging a system for either country will be much the same. Now, an informed, interested, and thinking body-politic would imply some process of education involving first, the imparting of certain quantities of facts, second, the awakening of intellectual curiosity, and third, some attempt to develop independent thinking. If these three elements can be mixed in due proportion, the result should be a type of education suited to the purpose in hand.

But just what constitutes a "due proportion" seems to be the snag. One class lays the greatest emphasis on the first requirement and maintains that any system of education is hopelessly incomplete and narrow which has not given the student a little Latin and mathematics, some acquaintance with English Literature, some German or French, a little ancient and modern history, political government, some manual training or needlecraft, a modicum of chemistry and physics, a bit of bird study, etc., etc., or in fact, which seems to slight any field of human knowledge. They unconsciously proceed on the theory that since no one knows exactly what he is going to do in later life, he should be given such a breadth of useful information that there is bound to be some of it which he can use later on. Needless to say, their program is so ambitious that they do not have much time for the other two requirements. They represent what we might term the adherents of the "fact-education" idea.

Another school, while recognizing the necessity of mastering a certain number of facts, argues that education is not altogether a process of accumulating predigested ideas on a world of isolated facts, but is rather a disciplining of the will and a training of the mind in correct mental processes; that it is a fitting of the recipient of this training to use his mind in solving the difficulties which life presents; that, further, it is an awakening of a craving for knowledge and an imparting of the means for self-satisfaction of this craving. They proceed on the

theory that the nature of the facts which one is to need in later life, whether he go on to a university or not, is of so problematical a nature that the best we can do is to insist on the mastery of a few fundamentals, such as English and mathematics. The rest of the time should then be spent, not jumping frantically from one thing to another, but in studying intensively subjects designed to give the maximum of mental training and discipline and at the same time a cultural outlook on life. They hold to what we might consider as the "mind-training" conception of education.

Let us now examine the American and English systems of secondary education, the former being, as I conceive it, an outgrowth of the first viewpoint, and the latter of the second. The mechanical details of the American High School are too familiar to detain us long. The work of the average four years falls into 16 more or less disconnected "subjects", each studied as a separate and unrelated field. As a rule, except for the requirement of three years of English and probably two of some foreign language, (and even this varies somewhat from place to place) the pupil is left to choose pretty much as he likes, so the specified number of subjects are taken and he arrives at the end of the four years with the required minimum of credits. Now from the point of view of the "broad-education" advocates, this system is ideal. By due choice the whole realm of knowledge can be visited in the short span of four years and there is no danger of turning out narrow specialists, for the pupil has never spent an appreciable length of time on any one subject.

It has nevertheless its disadvantages. The individual fields being taught from set text books in set courses come to be regarded as residing in water tight compartments, and the student is never taught and seldom has time to study out for himself the relationships which connect the various fields and join them one with another. As a result, he takes the facts as they are given, memorizes them blindly, or at any rate such ones as he finds necessary and lets it go at that. The idea of reading outside of a text book, in other than novels, has never occurred to him. Furthermore, it has seldom, if ever,

been pointed out that such reading is one of the most lasting sources of enjoyment and self-improvement. In fact, the whole atmosphere of the modern high school seems to be that of fitting out the pupils with a cargo of miscellaneous information with should last him until he has reached the allotted three score and ten. Our educators tacitly ignore the necessity or even possibility of continued reading and study once the pupil has left school, and make no apparent effort to train him towards this end. The result, of course, is natural enough. If he is not to read or study by himself when he has finished school, it is obviously desirable to load him up with as much information as the time will allow.

The result of this, also, is only too obvious. Since the world of knowledge has reached the bounds which it knows today, it has become humanly impossible for even a man of unusual attainments to acquaint himself more or less casually with the more important portions of it, even in the course of an entire life time. Yet, what this man of talent finds difficult in fifty odd years, we cheerfully attempt in the case of immature youths in the space of four years. Just at the time when the pupil should be gaining a thorough mastery of his mother tongue, should be receiving that strict mental discipline from which man can benefit only in youth, and should be acquiring those mental traits which will guide his reading and study in later life, just during these four precious years his time is being squandered in a hasty, shallow, sciolistic survey of knowledge. In an attempt to do the impossible we allow habits of carelessness, superficiality and inaccuracy to develop which constant effort in later life is often unable to eradicate.

The average pupil has never learned the elements of how to study. He leaves the high school a poor speller and unable to write a page of English without committing the grossest grammatical errors. In this anyone will concur who has had any experience with freshmen students entering the universities and colleges. Since usually more time is devoted to English than to any one other study, his attainments in other fields must be tragically

meagre. And, presumably, the greater share, at least, of those who go on for further education are among the better products of the high school. What level the rest have attained must from inference be very low indeed.

Of course, we must recognize that a unique feature of the American High School is its comparative freedom to all, regardless of financial condition. In some ways this very freedom has defeated its own ends, being responsible in some measure for the deplorable results we have just mentioned. It has brought such an overwhelming increase in numbers and consequent lowering of the general level of ability that standards have been forced to descend. The large classes and the need of keeping each class together have necessitated holding the brightest and most eager back to the level of the slowest and dullest. Our whole system seems designed for the lazy or inept pupil. How much budding genius we are stifling yearly I shall not even venture to guess. It is too solemn a thought. But, since genius or even conspicuous talent is so rare, and its contributions to the welfare of the human race so precious, it is permissible to question whether a poorly trained class of mediocre ability, obtained at its sacrifice, is worth the price we must pay. If we believe with that learned old Frenchman and staunch friend of Thomas Jefferson's, Pierre Samuel du Pont, that "a single day in the life of an educated man of genius is worth more to the world than the labor of a hundred thousand average men for a year", we shall agree that the price has indeed been very high.

Let us now turn to the English Public School, the details of which are somewhat less familiar on this side of the water. It might be well to remark at the outset that the schools, commonly known as "public", included, up until some thirty years ago, nothing but distinctly private institutions. They were consequently residential schools to which the scholars were sent, at a tender age, to remain during the greater part of their youth away from home. This feature I have always regarded as one of the most objectionable arrangements of the older system. During the last thirty years, however, state-aided and municipal schools have grown to a remarkable ex-

tent. These latter schools are free for non-resident pupils and have a number of free places awarded on the basis of scholarship and promise for resident pupils. They are not coeducational, the boys and girls attending school in separate buildings. The increasing number of pupils residing at home and studying at school during the day is an encouraging development of the last two decades in both types of schools. The so-called free or semi-free (i. e. schools receiving some state aid) schools have grown to such an extent that today in point of numbers they far outrank the older Public Schools, of which Eton, Rugby, Harrow and Shrewsbury, to mention only four, might be cited as typical. But, despite their relative fewness in numbers, these older Public Schools have, on account of their age, large endowments, and strong traditions exerted a preponderating influence on the development of the newer ones. This influence has been felt not so much perhaps in the exact nature of the curricula, as in the general methods adopted and standards set up. For this reason we shall confine our attention to these former as typifying the standards generally striven towards, even in the smaller and less well equipped institutions.

The study following the primary school covers six years, or "forms", the first of which is entered usually at the age of twelve or thirteen years. This six years the boy devotes to the study of Latin and Greek, the English language and literature, mathematics, one modern language, usually French, history, and, if he so elect, some natural science. Aside from the presence of Latin and Greek, the method of instruction differs most radically from ours in that the pupil studies so few things at a time. Thus, during the first three or four years he may spend practically his entire time on Greek, Latin, English, and mathematics. Then come French and history and more Latin and Greek or mathematics. If he so elect, he may devote less time during the latter part of his course to the classics and take up some one natural science, as physics, or chemistry, or botany. The point is that the pupil studies but a few things at a time, usually two or three, and continues his study of them over a

period of years in such a way that he really begins to get into the subject and thoroughly masters at least the fundamentals of it. As the pupils advance, the instruction of the brighter and more apt ones becomes less formal and they are taught to rely upon themselves and in a limited sense to direct their own efforts. Particularly able students may be allowed to spend the last year on two or even one favorite study, and through it all there is a constant insistence on mastery of anything attempted and a desire for thoroughness which cannot be compared with anything with which we are familiar.

Now the product of this system will appear on first sight to be rather narrow in his training to the average American. Let us look at him more closely. He has acquired a good knowledge of the Greek and Latin languages and at the same time a knowledge of these peoples, their philosophy and their history; he, even on the average, has had more mathematics and has it more thoroughly than the average sophomore in our colleges or universities; he can read French with some comfort; he has a good knowledge of the history and literature of the English people, and further, he speaks precise, correct English and writes in a clear, often bright and forceful style. If he has elected some natural science in place of the classics during his last two or three years, he has had usually the equivalent of two years of science of college grade. What is perhaps most valuable of all, he has cultivated the habit of reading and has learned how to study and how to think.

If I have analyzed the situation correctly, the application of the "fact-education" idea has reached an extreme with us from which we must soon return or our secondary education will become little short of a farce. I quite agree that a "broad foundation" is a desirable acquisition, but so far have we pushed the idea that the result has ceased to be a foundation at all. It has become so thin that it disintegrates (if it ever were integral) into a mass of detached units, a hopeless hodgepodge of half remembered and undigested facts. Even in the best schools when such an array of material has to be absorbed in so short a time, much thought or digestion of ideas is precluded.

The process usually descends into one of blind memory work on the part of the better pupils, and of slipshod half-learning on the part of the rest.

Of course, a good memory is an asset in any field of activity and quite indispensable in many. And if the system did nothing but train an accurate and tenacious memory, it would have certain recommendations. Most of us will admit that it does not do this; everything is skimmed over too rapidly and too many things are skimmed for the mind to get a fact hold. But supposing it did do this efficiently, could this be accepted as the rational aim of the educational process? After all, the memory is only the raw material warehouse of the mental factory, and if we spend so much of our time piling material into the warehouse that we cannot even sort it and label it, much less polish and align the mental machinery which is to employ it, how can we expect any results? To use another analogy, it is like providing a vehicle with a tank filled with a mixture of oil, water, and gasoline, and an engine in the form of the rough castings from the foundry. The oil, water and gasoline must be separated and put into separate compartments; the various parts of the engine must be milled, fitted and assembled. Then, and then only, this vehicle is ready to proceed somewhere other than down hill.

Just what our system fails to accomplish the development of the "mind-training" system of education realizes, at least in the main. The dogged insistence on thoroughness which is so characteristic a part of it, and the length of time devoted to each study insure the retention of a large number of connected facts and allow their being organized and more or less digested in the student's mind. The large attention paid to mathematics, and in this to original problem solving lacks its complete counterpart with us, as does also the general types of work usually designated by us as mental gymnastics. We are inclined to become rather impatient when anyone mentions the translating of difficult meters into Greek hexameters or the composing of original poems in Latin. We fail to see what an accurate training is necessary before they can be attempted and hence what a stage of develop-

ment their creditable execution reveals. The ability to do this must not be regarded, as has been remarked, as a mere virtuosity but as the symbol of an active and well trained mind. They ask, and justly, if the mind is not to be trained beforehand to reason and think how it can be expected to do so at all efficiently once it finds itself confronted by the actual problems and perplexities of life. Then the problems are real and success or failure may be the price of incorrect or faulty solutions.

On the other hand, the artificial difficulties set up for solution in school can bring no loss by occasional failure. They, moreover, give the pupil that healthy exercise in doing hard things, in untwisting knotty problems, and overcoming real difficulties which is of such incalculable value. We have the tendency to make everything too easy, perhaps a bit too sugar-coated, with the result that individuals trained under our system seldom gain, even in after life, the intellectual independence and self-reliance, the seeds of which should have been planted in school days.

Just after the war I saw a letter written by a prominent officer in the English navy on receiving news of the death of his old Greek master back at school. He was commenting on the various things which he had studied while in school and of their relative value in his after life. It seems that he had been put in charge of one of a fleet of nine destroyers and commissioned with the location and destruction of German mines in the British Channel and the North Sea. It was soon discovered that, in order to facilitate the laying of the mines and the marking of their positions, the Germans had taken to laying them in more or less well defined patterns, some rather simple and the rest very complicated. When a newly laid mine field was discovered, either by accident or as the result of search, a dredging process was resorted to until half a dozen mines had been located accurately. The problem of the commander was to take the positions of those which had been located, decide on what pattern the field had been laid and predict where the other mines were to be expected. In case correct conclusions were arrived at, a mine field of several dozen mines might easily

be destroyed completely in a few days, whereas, by mere cut and try methods, as many weeks might be required and in the meantime a transport ship and several of their own cruisers might be lost. In this letter, the officer went on to say that one particular year's work had meant more to him in this work than all of the rest of his study; and this was a course in deciphering ancient Greek inscriptions which he had taken with this same Greek master.

Now, on first sight, ancient Greek inscriptions and mine fields appear to lie at the very antipodes of unrelatedness. But it seems that this old teacher of Greek was accustomed to take the more advanced boys, who had their Greek pretty well in hand, and set them to deciphering inscriptions in which endings, odd words, and even lines were deleted. The pupils then were required with their knowledge of Greek life and manners as a background, and their knowledge of the language as a tool to decipher the puzzle. They must then give good reasons for every insertion which had been made. The result was that, far from being a mere puzzle contest, where a premium was put upon lucky guess work, the course developed habits of independent thought and logical reasoning. "This course", the officer said, "was of more value than all the rest put together because it really made us think, and beside it the years spent on Latin, history, etc. were quite wasted." He perhaps, however, did not stop to realize that it was the mental discipline acquired in mastering these other subjects which made this particular course of value and that without the habits of thoroughness and accuracy derived from them it could not have succeeded in the first place.

I have not given this illustration as an argument for the immediate introduction of courses in deciphering Greek inscriptions into our schools, but rather to illustrate the fact that in nine cases out of ten it is not the specific things which are studied, aside from the fundamentals, so much as it is the ability to reason and think through difficulties which is of most value in after life.

Now I do not wish to be thought of as holding a brief for the English Public School. It has its faults as has

our own. It has a certain tendency to get out of touch with the world and, in the case of the older public schools, tends to foster a class consciousness which we are striving to avoid. In its best form the system is also rather expensive, and hitherto the policy of the local governments has been to enlarge and give financial assistance to private institutions already in existence and to build and equip new ones of their own only when no others were near at hand. In proportion to the aid received from public funds the semi-private schools have lowered their fees so that we have "public schools" ranging from the free Public High School as we know it to the distinctly private schools of the older foundations. I have mentioned the rather unfortunate practice of sending children away from home at a comparatively early age, a practice necessitated at first by the fewness of the available schools and continued now largely because it has become the respectable thing to do. Its gradual decrease is a noteworthy feature of post-war England.

The American system has been conceived on a larger scale and does reach a correspondingly greater proportion of the population. I wish to point out, however, that in our satisfaction at having created a system of secondary education free to all, we are inclined to be blind to its most glaring imperfections.

Since the English public school receives its pupils a year earlier and keeps them a year longer than our high school, we cannot expect to cover a similar field in as thorough a manner. If we are to make the most effective use of these four years, however, we must, I feel, give serious thought to a somewhat radical rearrangement of our present methods. If we once realize that mental discipline is of more fundamental importance than mere memorizing of facts, and that training of the mind rather than attempted acquiring of possibly useful information should be the primary aim of education, the difficulty is half solved.

In the light of this I should suggest that four years might well be devoted to the following:

1. *Latin or Greek.* The mental discipline of study in a foreign language is unsurpassed, and no foreign lan-

guages can give the insight into the structure and use of our own mother tongue as do these root languages of English.

2. *Rhetoric and English Literature.* Accuracy in languages and fluency in his mother tongue should be the first marks of any educated person.

3. *Mathematics.* The rigorous training in exactness, the wide scope for development of originality in problem solving can perhaps be surpassed by no other study.

4. *Physics or Chemistry.* I have selected the exact sciences rather than Botany or Zoology, not only because they are fundamental to later work in any field of science, but primarily for their greater emphasis on exactness and their consequent higher value as discipline.

Time might also be found for a certain amount of history, though I do not consider it as well adapted to the purpose as those above. Moreover, a pupil who has had the vigorous training of the above schedule could acquire all the history he might reasonably be supposed to desire in the reading which the spare time of his first year out of school could provide.

It is quite possible that such a program could only be put into effect by selecting the upper one-fourth in an entering class and furthermore, the success of the whole undertaking would depend upon the training of the teachers who undertook it.

The day may never dawn when the program which I have outlined will find its exact counterpart in any school in this land, but I am firmly convinced that if our much boasted free education is not to become as valueless as it is free, we must return to the principle of fundamentals first; we must demand mental discipline in place of purblind memorizing, must exalt thoroughness above sciolism.