

ARTICLE II.

SHOULD A TEACHER ALSO BE AN
INVESTIGATOR?

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IT is generally admitted, in academic circles, that the college, or at least the university, professor should likewise be a creator of knowledge. It is doubtful whether this opinion is a wise one, unless many exceptions be admitted, particularly in its application to the historical sciences. Probably the domain of inanimate and unconscious nature is unlimited; the field of history is rapidly narrowing. In some remote corners of the earth, or in some large library, a few hitherto unexamined records may still exist above ground; within the realm of civilization they are comparatively few and unimportant. Besides, he who would explore hitherto unused or little known archives needs a special equipment as a linguist in addition to time and means, all of which are generally lacking to students after they have attained a graduate degree. The most that a large majority of the best-qualified postgraduate students can do is to arrange into a lucid whole materials already well known. This requires judgment and skill, combined with no small measure of literary ability. Research work, in order to be of any value, demands special qualifications which the best educational facilities cannot furnish. Our country has produced historians, broadly speaking, in strictly European subjects, of the highest rank. I need mention only Ticknor and Motley, but especially Lea and

Furness. Only one of these was connected with an American university for a comparatively short time in early life. It is a matter for profound regret that the old-time scholarship has almost become a thing of the past. A few years ago a pupil of the late Professor Shaler said to me: "I do not believe there is an American now living under sixty years of age whose knowledge is as extensive and accurate as his was." The more's the pity. Breadth of intellectual outlook is not necessarily inimical to profundity. Few persons are aware of the variety of subjects on which Kant lectured that had no connection with metaphysics.

Until about fifty years ago it was a comparatively easy matter, at least for foreigners, to obtain the degree of Ph.D. at most of the German universities. This fact was tersely expressed by Professor Kästner, who used to say: "We take the donkey's money and send him back to his country." It should be remembered, however, that "foreigners" in those days meant not only natives of another country, but also natives of another province. Until about the middle of the nineteenth century non-German students at a German university were very uncommon. It used to be said that when the trains first began to run, or rather to pass, through Marburg, in their leisurely way, the *Pedell* of the University was wont to loiter about the station with a couple of diplomas under his arm, filled out except the name of the recipient. If he saw an intelligent-looking young man among the passengers, he would approach him and insist on his accepting one, — not without paying for it, of course. Of three young men whom I knew in my student days who received a degree at Göttingen, only one was willing to "fight the faculty," as they expressed it (that is, take an oral examination), the other two excusing themselves on the ground of an inadequate

knowledge of German. Yet under this loose system most of Germany's great scholars were trained, and we may add some of their great writers. So little has the form to do with doctors' theses that the successful candidate often writes in a language which none of his examiners fully comprehend; or if he uses German, it is defective not only in style but even in grammar. Many Germans have, within recent years, expressed regret that comprehensive scholarship among their countrymen is almost a thing of the past. It is probable that a superior style is not a matter that can be taught. On the other hand, when we consider how much the French accomplish in this direction, we must be convinced that proper training counts for a great deal. Besides, when we take into account the enormous output of the German press, we must admit that while much of it is crude, a considerable amount is not without a good degree of excellence.

There are in this country at present at least a score of universities that have a larger teaching force and more ample financial resources than any in Germany, with the possible exception of two or three. Yet they have not made their impress upon the public mind in a very marked degree. Most of them are chiefly known through their exploits in athletics. Of the Nobel prizes in physics, chemistry, and medicine, not one has come into the hands of a native American. Our inferiority is plainly not due to a lack of resources. Public opinion does not encourage the highest type of intellectual activity.

Coming to the question of research, who is profited by an elaborate *Neue Auffassung des Hamlet*, or by *Der Wortschatz Mandevilles*? Such papers require no ability whatever, —merely industry or an unbridled imagination. Suppose that a student, instead of writing a thesis on alliteration in

Horace, were to make a first-hand study of his poems without consulting a single modern author. Such a study would probably not contain one new thought; but, if combined with careful translating, it would be of the highest value to the investigator. It would have the effect of broadening his view of literature and of sharpening his intellectual insight, such as no mere *Wortkraemerei* could do. For, as a writer in a recent number of the *Popular Science Monthly* puts the case, "When we contemplate the vast number of so-called researches published every year, it becomes evident that science will be more surely advanced by improving the quality of these papers than by increasing their bulk."

If a reform is desirable in the physical sciences, it is even more desirable in the mental sciences. In his "Practical Study of Languages," Henry Sweet says: "A good deal of what is grandiloquently called 'original research' is purely mechanical work, requiring almost less originality than the routine of a bank clerk. The 'researcher' looks through a catalogue of manuscripts, and finds, say, a *Treatise on the Seven Deadly Sins* in the Kentish dialect of the fifteenth century, or a fragment of a translation of the French romance of *The Adventures of Sir Arthur and the Green Lady*, which his professor assures him has never been published. Our student copies it by the help of a facsimile of the handwriting of the manuscript, translates it with the help of the Latin or French original, and then publishes the text with a glossary and an introduction, two-thirds of which is perhaps written by his professor. On the strength of this original research he is then himself made a professor — a professor who never in the course of a long and laborious career shows the slightest glimmering of originality. The evils of the German system which requires, if not the reality, at least the semblance

of originality from every candidate for the doctor's degree are manifest and self-evident. Any measure that would stop this overproduction would be welcome." Although there is a slender possibility that any person, unless he be endowed with exceptional ability, will be able to advance the cause of science, broadly speaking, there is no lack of opportunity for the promotion of culture. One does not need to be a producer of literature in order to be able to discriminate between what is superior and what is inferior. If the patronage of good music were confined to first-class performers, it would be slender indeed.

To what an enormous extent recent writers fill their books with matter that does not increase the sum of human knowledge is strikingly exemplified in the case of Euripides. In the Preface to his recent six-hundred-page volume on this dramatist, the late Dr. Nestle cites at least ten different authors who have dealt with the same theme, without counting special articles, criticisms of the text, or historians of Greek literature. Yet after reading this accumulated mass of fact and opinion, what do we know about Euripides that we cannot get by a careful study of the original? We have here a display of erudition that is hard to distinguish from pedantry. The same affirmation may be made of almost any well-known writer of antiquity. We may take an author, analyze his style, study his technique, if he be a dramatist, ascertain his philosophy of life and his relation to contemporary thought, and find the labor profitable. But if it has been once done little is left for gleaners. The case is virtually closed. Everybody knows that the latest books on almost every subject are filled with criticisms of their predecessors. Verily, they do not increase the sum of human knowledge. We have in two recent Greek histories, that of Busolt and that of Be-

loch, characteristic samples of German thoroughness. Although the first extends only to the battle of Chæronæa and is still incomplete, it fills nearly twenty-five hundred pages. Sometimes we have only a few lines of the author's at the top of the page, the rest being taken up with a mass of references and discussions. The second is somewhat smaller and less burdened with footnotes, covers more ground, and is far more readable. Yet after working our way through this mass of matter, how little of value do we find that is not in Grote, except so far as it deals with the early period, which hardly belongs to the subject? A work of the same character is Macan's Herodotus. What everybody, both ancient and modern, has written upon Books IV.-IX. is here set forth in detail. After reading all the author has to say, we find that it is almost exclusively subjective, and of no real value except as a sort of encyclopedia of other men's theories and opinions with the author's assent or dissent. There is hardly a single point upon which we get any additional light. Neither Busolt nor Beloch nor Macan exhibits the grasp and insight of his distinguished predecessor. When we take up Roman history we find ourselves in much the same case, compared with Mommsen. A great deal has been written within the last score of years by Germans, Frenchmen, and Italians, but it can hardly be said that we know more about ancient Rome than we knew after the appearance of Mommsen's *magnum opus*.

I have no desire to depreciate the merits of investigations in physics, chemistry, or biology. There are, however, not many persons who claim for them a high cultural or educational value. If similar methods are applied to literary subjects they are even less profitable, because the probability of making any discovery of importance is extremely remote.

But if studies of this kind are pursued on a sufficiently comprehensive plan; if they deal with personalities that have exercised a widespread influence upon the thought of the world, they not only fill the mind of the student with knowledge, they likewise improve his taste. They give him what the Germans call *Bildung*.¹ Science is more concerned with depth; education or culture, with breadth of comprehension. The former seeks to find out what is not yet known; the latter to enter into the spirit of what is the common property of the human race.

“Alles Gescheidte ist schon einmal gedacht; man muss nur versuchen es noch einmal zu denken.” It ought to be possible for our educators to devise a system of awards for students who excel in broad scholarship and literary excellence, somewhat after the English method, equal to those granted to students who have a talent for minute research, if minute research requires talent, but who lack the necessary ability for lucid presentation, or who deal with subjects that do not admit of it.

The older English universities have doubtless always been, and probably still are, deficient in many things. English public opinion may have attached undue importance to what is of doubtful value. English teachers may, in the main, be prone to lay too little stress on certain kinds of thoroughness. But no one can deny that the great English schools and universities have produced a long line of scholars of the highest rank. Most of them knew, moreover, how to put the results of their studies into masterly English. It would not be possible to name a pleiad of men who have more profoundly influenced modern thought than Darwin, Huxley, Tyndall,

¹ It may be worth noting here that both *Bildung* and *culture* are essentially nineteenth-century words, as any one can convince himself by consulting an historical dictionary.

Maxwell, Lubbock, Tylor, and Thomson. Yet these are hardly second to a score of others. Carl Hillebrand, who wrote in four languages and always said something worth heeding, says in one of his essays: "More wonderful than the fertility and perennial youthfulness of Bulwer are the fertility and perennial youthfulness of England, which in one hundred and fifty years has produced a dozen writers of novels who are scarcely equalled by a single one on the continent. Besides these, it possesses about a hundred others who are in no wise inferior to the continental writers of fashionable romances, but who surpass them at least in one respect: they are entertaining while the enjoyment they afford their readers is not purchased at the price of morality or of nature." Yet the writer of these lines is here speaking of only a single domain of intellectual activity. Perhaps a majority of Great Britain's distinguished men and women had no direct connection with its universities; but these at least set up a goal toward which, in the essentials of culture, popular opinion has striven. If they did no more than set up a standard, it may have been so high that comparatively few could attain it. They accomplished all that could be expected, if they incited many to make the attempt.

Culture is the process of acquainting ourselves with "the best that has been known and said in the world." It does not connote the possession of extensive knowledge. It is an attitude of mind rather than an acquisition of the intellect. It cannot be acquired by mastering the best course of education that can be devised. Culture is not a matter of knowledge but of appreciation; not of quantity but of quality; not of knowing but of feeling. It is not acquired by analysis but by synthesis. Richard Porson was England's greatest Hellenist; at any rate he was second only to the other Richard

who flourished a century earlier. Yet he was as far from being a man of culture as the proverbial east is from the west. No greater contrast in manners and character can be conceived than that which presents itself when we compare him with another distinguished Greek scholar, Thomas Arnold. Yet both were nourished primarily on the same intellectual pabulum. The negative effect of Greek learning was exhibited by two distinguished scholars on the other side of the North Sea, — Wilhelm Dindorf and Rudolf Westphal. When one has listened to the anecdotes of these two men related by persons who knew them, anecdotes that will never find their way into print, we are forced to conclude that familiarity with Greek did nothing to mitigate the vices that were inherent in their nature. In marked contrast to these two Germans both in character and disposition was another enthusiast for everything Greek, Friedrich Jacobs, a fellow countryman of theirs. Evidently it was not their intellectual pursuits and attainments that made these men so widely different. If external influences, if studies, if knowledge and scholarly attainments, could have accomplished anything, the bearing of all these men must have been alike.

As culture represents an attitude of mind rather than the possession of information, it is not likely to be changed with advancing years, or by enlarged experience. We all know men who are bores by nature, men whom no amount or kind of knowledge can transform into anything else. With science it is different. In the nature of the case its domain is unlimited. Hence the mind of the scientist may be far less cultured than that of Plato, or of Cicero, or of Plutarch, but in the amount of knowledge be infinitely in advance. Plutarch, and less systematically Dio, may be said to have been the last champions of a liberal education who belonged to the ancient

world. Both would have been shocked to hear it advocated on grounds of utility. But because the education of the ancient world omitted a direct questioning of nature, the society which it sought to conserve passed away. Science is not merely a conservator of society, it is likewise a motor which increasingly impels it forward. Culture is a matter that is always individual; science is universal. The work of the scientist is judged by its value, not by the character of the men behind it. The possessor of true culture is above his environment and in advance of his time. He may be, and generally is, the admiration of the small circle of those who know him directly or indirectly; but he will have little in common with the many. To them he will be the visionary who attaches undue importance to things of little worth, or of no worth at all. Hence they will always be few who seek it.

When we read or listen to the oral reminiscences of students who attended college under the old régime, we are constrained to believe that their faculties often contained superior men. The president usually did a good deal of teaching, and thus came into personal contact with all the undergraduates. The teaching force took themselves and their vocation seriously. The instructors regarded themselves not only as the teachers of the young men entrusted to their care, but the custodians of their morals as well. There is no better evidence of this than the compulsory attendance at chapel and at the Sunday services. They held these exercises to be an important part of their vocation, or they would not have put them at such an unseemly hour as they often did. The student might find these duties very irksome and unreasonable, but they could not help seeing that to their teachers they were a serious matter. Moreover, these rarely commended the higher education because it was pecuniarily

profitable. Had they done so, their meager salaries would at once have convicted them of a glaring inconsistency. Education to them meant culture; it meant the opening-up of a larger vista before the minds of youth, a preparation for life as a whole rather than a preparation for some particular vocation. Most of the presidents, and not unfrequently members of the faculty, were men of considerable ability, of no mean scholarship, and of great force of character. They wrote few books because they spent most of their time in the classroom. As most of the members of the faculty and the president always were ministers of the gospel, they rarely came before the public except in the pulpit. Their sacred calling was therefore, to a considerable extent, reflected in their work as teachers, and gave to it at least a quasi-religious character. If they were not what would now be called good teachers, they were usually excellent drill-masters.

As the subjects taught were chiefly historical, this was a decided advantage to the students. When every member of a class was liable to be called on any day to recite, he was pretty sure to prepare himself for the ordeal. He might get up his Homer or his Virgil with the help of a translation; but if he had not consulted the grammatical references his slipshod work was almost certain to be detected. Although most of the graduates expected to enter the legal or medical profession or the ministry, there was virtually nothing in the curriculum that looked to one of these professions rather than another. It had been devised for the training of the mind rather than for the communication of knowledge. Although there was among the students a good deal of indulgence in horseplay and in drink, and although they often made themselves conspicuous by their rowdiness, it is a question whether there was more immorality among them than

there is in their twentieth-century successors. While the college affected a much smaller portion of the community than it affects now, the effects produced seem to have been deeper and more permanent than most of the students themselves were aware of, until long after their college days had passed. A young man who went to college did so for the purpose of studying. That many spent their time otherwise, is well known.

Professor Gayley has graphically, if somewhat hyperbolically, described the activities of the modern college boy in his "Idols of Education": "Class meetings, business meetings, committee meetings, editorial meetings, football rallies, baseball rallies, pyjama rallies, vicarious athletics on the bleachers, garrulous athletics in dining room and parlor and on the porch, rehearsals of the glee club, rehearsals of the mandolin club and of the banjo, rehearsals for dramatics (a word to stand the hair on end), college dances and class banquets, fraternity dances and suppers, preparations for the dances and banquets, more committees for the preparations; a running up and down on the campus for ephemeral items for ephemeral articles in ephemeral papers, a soliciting of advertisements, a running up and down for subscriptions to the dances and the dinners, and the papers and the clubs; a running up and down in college politics, making tickets, pulling wires, and adjusting combinations, canvassing for votes — canvassing the girls for votes, spending hours at sorority houses for votes — spending hours at sorority houses for sentiment; talking rubbish unceasingly, thinking rubbish, revamping rubbish — rubbish about high jinks, rubbish about low, rubbish about rallies, rubbish about pseudo-civic honor, rubbish about girls; — what margin of leisure is left for the one activity of the college, which is study?" There is no

panacea for mental atrophy nor for laziness either in the professor's chair or outside of it. The man himself is the decisive factor. But it is not often that the lover of science or the lover of literature becomes cold toward his mistress.

It is a prevalent belief, although an erroneous one, that the professors in German universities are all investigators. Every one who has been a student at a German university knows that lectures are often read from paper that is yellow with age. The contrast is marked when a new leaf appears once in a while that has evidently been inserted "within the memory of men now living." Owing to the diminishing number of fields still unexplored, and the enormous amount of labor necessary to discover anything which is not already known, research work in the true sense of the term, and not merely a finding something which the seeker does not happen to know, is daily becoming more difficult. In the universities that use the German language, there are some thousands of doctors of philosophy. That all of these, or even a considerable proportion, could increase the sum of human knowledge or have done so, is a preposterous supposition. This being the case, there is an increasing field of usefulness for the inspiring teacher. If he chooses so to regard it, his work is new with every fresh pupil. There are men whose enthusiasm is not dulled with advancing age. It is an erroneous assumption that a man's efficiency necessarily decreases after a certain number of years have passed over his head. The services of some men are more valuable at seventy than those of others at thirty-five. With some teachers, experience increases efficiency and keeps it at high tide with class after class; with a larger number it produces indifference, routine, and intellectual hebetude.

Our institutions of higher learning are destined to divide

more and more sharply into two classes. Those that are supported by taxation will be compelled to devote themselves to the practical branches; the culture studies, such as the ancient languages, literature, and philosophy, will be left to those that are supported by endowments. In some of the larger state universities, Greek is scarcely taught, and even Latin has a very subordinate place. Much harm has come to the cause of higher education from the competition for students. When the president of a college or university is chiefly concerned to boast of a large enrollment, but especially of large graduating classes, the cause of scholarship must suffer. Sometimes a young man who has been graduated through sympathy wakes up and makes his mark in later years; but it is a poor policy to take many risks of this kind. Quite too many young people are literally "lured" into college when they should be devoting themselves to the preparation for some practical vocation.