

PROFESSORS, AS VIEWED BY ONE OF THEM

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DURING a connection of some thirty years with academic institutions, a teacher inevitably forms some opinions regarding his fellows on the staff. The following is an attempt to gather these impressions together from experiences acquired on both sides of the Atlantic. No doubt the impressions are biased. It is difficult to look objectively at a profession of which one is a member. Other university officials—principals, secretaries or registrars—would make more unprejudiced witnesses. The onlooker sees most of the game; but on the other hand, the players have their point of view, and their opinions regarding their fellows are often pronounced and may be nearer to the truth than those from the side lines. There is, of course, a third point of view—that of the ball—the student. His remarks may be even more pungent, but they are partial, and the experience is limited in time.

Naturally one speaks more specially of one's own faculty. I know best the medical, and in a sense the medical faculty of a university stands by itself. It consists in part of men who resemble the professors of other faculties—whole-time men, and in part of surgeons, physicians, health officers—teachers, that is, whose work is mainly preventing and curing disease rather than academic in the ordinary sense of the term. There is, however, much in common between the members of the various faculties, and perhaps arts and science teachers who read these lines will pardon this somewhat partial presentation of the subject.

The functions of a professor are fourfold:

1. The teaching of his students in his own particular subject.
2. The carrying on of what may be termed research and the writing of text-books, functions which may be bracketed together.
3. The administration of his department, which includes not merely the purchase of material and apparatus, of books and periodicals in his subject for the library, but also the selection of his junior staff and the supervision of their teaching.
4. It is desirable that the professor should be a personality exercising cultural and character-building influence on his students.

It is remarkable how seldom it is that eminence in the four functions mentioned are combined in one and the same individual. I think it would be fairly safe to say that they never are combined in any marked degree. The first-class teacher is seldom a good scholar or researcher. The man whose inclination leads him into the business side of university life is not often prominent in the other lines mentioned. The personality is frequently very little else. I venture to doubt if it is advisable that teachers should attempt to excel in many directions. They will follow their own bent, and it is probably well that they should do so.

Before taking up these various functions in detail, I propose to say something of their relative importance. Who are the men that exercise most lasting influence upon their pupils? Who are the men they remember in after days? Undoubtedly, I think, the "personalities". A student attends a university not merely to acquire information, but to develop culture and character, and the men who influence him most are the personalities on the staff. However, one cannot say "Go to, let us place in our chairs men of outstanding personality and strong character". The result would probably be that this one would take to drink, the next would run off with a colleague's wife, and a third would end in a lunatic asylum. They certainly would all quarrel violently. One thinks of the group of men who taught Edinburgh medical students two generations ago. The list comprises some of the greatest names of the day, Simpson, Syme, Lister. Each and all of them were personalities. I don't propose to enquire into their private lives, but the result of their association in the faculty was a very large amount of undignified bickering in public and in private. It simply does not do to have too many personalities. We must leave this matter to chance or providence. We dare not make it a criterion for selection.

The first desideratum is, probably, teaching ability. No doubt some would dissent, and place scholarship and research first. I would be inclined to agree, if the value of the research were of the first water. But first-class researchers and scholars are as rare as snow in summer. I think that, quite definitely, for the last thirty or forty years research and scholarship have been over-emphasized in making academic appointments. It is far better to have a first-class teacher than a second-class researcher, and most researchers are second-class or even worse. Far too much has been and is being published. Ninety per cent. of it at least is comparatively worthless. It is burdening our libraries, and filling useless periodicals, and occupying the time of a lot of people

in writing and reading, in controverting and correcting, in printing and filing, who might be much better otherwise engaged. It is perfectly true that we do not necessarily immediately recognize merit in research. In other words, it may be years before we can properly evaluate a piece of work. Gregor Mendel's paper on experiments in Plant Hybridisation was buried in the archives of the Natural History Society of Brunn for 35 years before its epoch-making character was discovered. But that fact does not alter my main contention that the vast majority of researchers and scholars are second-class, and that research should not come first in appointing and promoting teachers in universities. I agree that teaching is not the only function of a professoriate. I am prepared to support the paradox that a university could exist without any students. A university is a centre of culture; its influence should be felt far beyond its walls, and this influence is not necessarily dependent upon the number of its pupils. One valued and aged member of the staff of my university, when I told him some years ago that the students had struck, stamped his stick on the pavement and said "Damn these students: they think they are indispensable, and we would really get on much better without them". But there is an ineradicable impression amongst the general public, and in this view, alas, the executive support the public, that a university is intended for students, and that the more there are the better for everyone concerned. The opinion of the serious teacher is that, within limits, the fewer the better. Of course, I am willing to admit that with insufficient stimulus to teach, a large proportion of professors would go to sleep in their chairs. But then, a large proportion of them do that anyway.

Administrative capacity definitely comes last on the list, although the selection of the junior members of a department, the proper balancing of the budget, and the distribution of the work are all matters of importance. And yet, of course, it is the administrators who become the deans and principals.

Let us first, then, examine the teaching functions of a head of a department. He should, in the first place, know something about teaching. Too many members of our university staffs drop into their jobs in the most casual fashion. They are able men, with outstanding knowledge of a particular branch of academic learning, but they often know little or nothing about how to impart that knowledge to the undergraduate. As a rule now-a-days, they pass through the lower grades in the academic profession, but even that apprenticeship does not always make them good or even moderately good teachers. Teaching school may be a good preparation for

teaching in a university or it may not, and the competition of an extramural position, as at Edinburgh, or in one of the German universities as privat-dozent, usually demonstrates the presence or absence of the power to impart knowledge. However, the amazing thing is that academic bodies pay little attention to a professor's record in teaching when making appointments on their staffs. A certain lecturer in the Extra-Mural Medical School of Edinburgh was one day discovered by a colleague walking along Princes Street at the hour at which his class met. Challenged on the matter of his absence from duty, he explained that his class was attending his mother's funeral! Yet within a short time this gentleman was made a professor in his subject at the university, with disastrous results in the teaching effectiveness of his department for a generation to come. It is perfectly true that imparting information is not the same thing as teaching in the academic sense. We are not here to cram our students. We are here to give them an enthusiasm for a particular branch of knowledge, so that they may teach themselves. But it is lamentably seldom that a professor, however enthusiastic he himself may be, can light the torch in the mind of his pupil. The fact is that teachers are born, not made, and the birth rate of teachers is not high.

Something might be said about discipline. H. G. Wells in his *Experiment in Autobiography* puts the matter in a nutshell when he says that "Poor discipline goes with poor teaching". That is true. If the students are not interested, they are unlikely to pay attention to what is being said. If, on the other hand, the teacher is in love with his subject, provided he can present it in an intelligible form, he is bound to claim attention. The matter is, however, not quite so simple. It is exceedingly difficult for even a first-class teacher to hold the attention of three or four hundred students. It is not impossible, as was demonstrated in my own student days by more than one of my teachers. But in addition to being full of his subject and being able to speak distinctly and place facts logically, for the purposes of obtaining a hearing in a class of several hundred a professor must be a dominating personality. Even a combination of all these characteristics is scarcely sufficient, especially when there are students present who are not respecters of persons and are out to make trouble. I recall one of my own teachers—William Rutherford, professor of physiology in Edinburgh. He was full of his subject, had a magnificent presence, a powerful voice and a fine delivery. But he was easily baited, and he would burst forth in reply to some interruption into furious sarcasm directed against some unfortunate

and often quite innocent member of his class of 444. In addition to the characteristics mentioned, a professor should possess tact and a sense of humour.

It is unnecessary to say much at this period of time as to whether a professor should read his lectures or use skeleton notes. I take it that no one now-a-days advocates the former. I suffered under teachers in Edinburgh who not only read their own lectures, but who insisted, when they were absent from their class, on their substitute reading these same notes *verbatim*. At the exit of a classroom in my ideal university I would have a wastepaper basket into which teachers would be compelled to throw whatever they came into the lecture-room with, in the way of notes. A teacher, it is perhaps needless to say, should, previous to meeting his class, so saturate himself with his subject that anything more than the briefest of headings in the way of notes is unnecessary. And he should do this every time he meets his class in that particular subject.

Some will, no doubt, contend that in the ideal university the didactic lecture will have disappeared altogether, to give place to something which is more like a seminar—a small class of half-a-dozen in which both teacher and pupil take a part. To my mind this is all a matter of the size of the class—the number of pupils. Didactic lectures appeared when classes reached unwieldy dimensions. Try it yourself, and you will find it impossible to *lecture* to a group of half a dozen students. The proceedings inevitably adapt themselves, the style of the teacher becomes conversational, and the pupil summons courage to make his contribution. This is the strongest possible argument for small classes.

As to the matter of compulsion in attendance at lectures or seminars, I don't see how it enters into the question at all. It is only because some lectures are not worth attending that the matter is raised. Serious students will attend if they find they are helped. The student who is not serious is no student at all, and need not be considered. Therefore attendance at lectures should not be compulsory. Moreover, a student should have more liberty to select his teachers. H. G. Wells has some pungent and true things to say about teaching. "I am convinced" he says, "that for college and university education, keenly interested students—and after all they are the only students worth a rap; the others ought not to be there—should have much more freedom to move about and choose their own courses and teachers than is generally conceded them".

Then there is the question as to whether in the division of labour in a large department the head of it should teach the junior or the senior student. I have no doubt whatever upon this point. The man with the greatest experience should teach the junior student. A student well grounded in the elements, who has been given an enthusiasm for his subject, ought to be able, with proper guidance, to continue the process himself. I would leave the teaching of the senior students to the less experienced members of the staff. It will have the additional effect of acting as a mental stimulus to the younger men.

The next function of the professoriate is to advance knowledge in their various departments, either by carrying on research or by writing books. A professor who does not publish has difficulty in keeping abreast of the times. I have known of cases where a too great sense of the imperfections of his work prevented a professor from giving the results of his labours to the world. That is all right. He is probably a very wise man, and so long as he does the work his teaching will not suffer, but it is a pity that his school should not get the credit of the work. That, of course, is one incentive to the carrying out of research—the enhancing of one's own reputation and that of one's school; but it should not be the fundamental stimulus. The proper incentive to original work is, as McKendrick put it in his *Life of Helmholtz*, to clear the teacher's own mind: "He (Helmholtz) investigated because he wished to speak of matters at first-hand. Again and again he took up a problem, so that he might master it himself and be enabled to make it clear to his pupils". As H. G. Wells says again—"There is really no point at which good teaching ends and original research begins. From first to last in a science, the lash and spur of interrogation must keep the mind alive".

There is, of course, another point of view. A man investigates along certain lines; the subject interests and fascinates him. He becomes an authority upon some minute point, let us say the nerve supply of the umbilicus, or parliamentary diaries of the seventeenth century. He attracts the notice of scholars in distant lands; earnest students come to learn at his footstool, and these spread his fame and that of the institution he represents. He is known in the world of pundits as So-and-So of such and such a place. A man of this kind is valuable to his university. Occasionally he is invaluable to humanity. If he is the true type of researcher, he will contribute something really lasting. But how many of this tribe degenerate into the fusty professor of the comic

press, interested only in one small corner of human knowledge irrespective of its applications!

If he is engaged in some abstruse research, the teacher should not over-emphasize it in his teaching. By all means let him explain what he is doing, and so excite the interest of his pupils; but let him not be carried away above the mental altitude of the student, as for example Lord Kelvin very often was. I knew of a wonderful combine of three teachers which was wrecked for this reason. Three consultants arranged to give a course in medicine together, each taking his own specialty. But the result was that one let loose on hearts, another went up to the skies on lungs, and the third let himself go on the central nervous system. The consequence was that this super-class existed for one year only. This raises the question as to whether a teacher should address himself to the average intellect or endeavour to interest and stimulate the better brains in his class. Should he address himself to the unusual student, or speak down to those of average intelligence? There is no reason to my mind why in simplifying his subject he should not appeal to both classes. He should, of course, indicate where the curious may find more provender. He should be *au fait* with the modern text-books and current literature, and deal openly with differences of opinion amongst pundits. I do not believe in a teacher laying down the law and insisting upon his own views being the only views. It is perfectly scandalous when, as examiner, a professor refuses to accept opinions other than his own.

It is perhaps needless to point out that in order to carry out research a professor should not be overburdened with routine. He should indeed have ample time for reading, for attending society meetings and for visiting other institutions. A department should be staffed so as to permit of the various members having leisure to think and write. It is well that they should at intervals be set entirely free to travel, and spend a year or more in other environment. This necessity is met by the Sabbatic year. There is another point about research, and that is that where active original work is going on in all departments of an institution, an atmosphere is created which is stimulating to pupils and teachers alike. One can feel the ozone of enlightenment and progress in a school where every department is alive and contributing, and one can likewise feel the deadening influence of static departments. This is the real difference between the university properly so-called and a glorified high-school.

The third of the duties of the professor is the management of his department. I don't propose to go into this matter in detail. We are not all business men; in fact I rather imagine that our treasurers and registrars would put the case in somewhat stronger language. We should, however, be aware of all that goes on in our departments. We should see to it that a sufficiency of books for consultation on our subjects is in the library, and that only those periodicals which are worth while are taken in. We should appoint our junior staff, and see that the men are first-class. It is here that natural selection should be given free vent. It is needless to say that only the best type of men should be appointed and retained, and the head of the department should make it his duty to be aware of the teaching ability and the general promise of his staff. The whole future of the institution depends upon this matter of the appointing and promoting of junior teachers. I might say something about unloading, i.e., the palming off on another institution of difficult or undesirable men. I have seen it done more than once. Testimonials should be ignored, as many men are quite dishonest about the matter. It should be possible by careful enquiry to ascertain what it is necessary to know about a candidate. It is in the years of service on the junior staff that a man shows his value. If he proves himself a poor teacher and no researcher, he should be advised to quit and take up something else. This is a matter which concerns the executive of the university, but it is usually on the recommendation of the head of the department that action is taken.

And, fourthly, we might say something about the professor as a cultural and spiritual influence. The type of professor usually seen in the comic press, who is so immersed in one small branch of his subject that he is oblivious as to his personal appearance and forgets his home address, should be barred. He is all very well in a museum or in an Oxford college, but few institutions can afford such luxuries. He has no place in the ideal university. Those of you who have read E. F. Benson's *As we Were* will recall his examples of old birds of this type who nested in Oxford colleges, and who came out at infrequent intervals only to blink and look comic. It is a trite saying, but a true one, that a specialist should know something of everything as well as everything of something. The ideal professor should be a wide reader, and should take an interest in all departments of life. He should be a good citizen, and should give a lead in crucial matters to his fellows. I am not so sure about his dabbling in politics. This question of the participation of members of university staffs in party politics has

received considerable publicity recently. My own view is that so long as he preserves an objective attitude and confines his criticism to matters in which he is a specialist, a professor is on firm ground. But when he exhibits bias and openly aligns himself with one particular party, he loses his influence. The public comes to look upon his interference as captious criticism from the side lines, and not a helpful contribution from one who knows the game. This was borne in upon me by an incident in the British election in 1910 upon the constitutional issue. A Liberal had been returned for a certain constituency at the general election. Some weeks later he was raised to the bench, and a by-election became necessary. The professor of history in the university was chairman of his committee. Immediately preceding the second election he wrote to the local paper resigning his connection with the Liberal party. Here was an acknowledged authority upon history openly changing sides upon the main issue before the country—a constitutional one. The result of the election was a difference of five votes, two of which were accounted for by the professor himself.

For the purpose of exercise of this cultural and spiritual influence, the teacher should be in closer touch with the pupil than is possible merely in the class room. The advantages of the Oxford system of residential colleges are obvious. In default of these, the professor should invite his students to his home, and should mix with them in their societies and in their sports. He should check ill manners in the class room, and insinuate human touches into his teaching. I believe that the ideal university should be upon the Oxford plan, and that teachers should frequently meet their pupils in the ordinary course of social life. It is only thus that cultural influences can be properly disseminated.

And lastly, because it comes last, there is the question of superannuation of the teaching staff. The "too old at forty" slogan of a generation ago is, of course, nonsense. Osler, who started it, was really pulling the leg of the public. But the press took him seriously, and he was hurt. It was one of the few things he initiated which he disliked mention of later on in life. As a rule, a man is just at his best physically and mentally about 40 or 45, and in many subjects where experience is an important factor he goes on or ought to go on improving steadily in value until the silver cord is loosed or the golden bowl broken,—until, in other words, he begins to lose his faculties.

This is probably not so true in some of the Arts subjects as it is in Science and Medicine; but where illustrations from a ripe experience are important factors in teaching, it certainly is a matter

of great moment. Early superannuation has been carried too far in many universities. Some insist upon retirement at sixty. That may be all right in individual instances. I have known teachers who lost their usefulness long before that. But then, they probably were never any use anyway, and they should not be taken as examples. I think that the proper method is to consider a man's position when he reaches the age of sixty-five. If he is obviously past his usefulness, he should be discharged and suitably pensioned; but if he has retained his vigour, let him go on till seventy or longer.

It is otherwise with research. First-class research is turned out only in early and middle life. A man may continue to direct research for years after he has lost his agility of mind and his forward look, but research work is definitely the prerogative of youth. The superintendence of research is another matter. In this as in so many other things, experience plays an important *role*.

I would sum up my main contentions as follows: The professor should be an outstanding teacher or scholar, or preferably both combined. Only such should be permitted to occupy the directing positions. He should, further, be a man of wide general knowledge and culture. All facilities should be given him to develop to the maximum of his bent. He should not be overburdened with routine. He should have generous holidays and ample opportunity for visiting other teaching institutions in his own and in other lands. His function is primarily to create an enthusiasm for knowledge in the minds of his pupils, and to inculcate high ideals which remain with them and weave themselves into the fabric of their characters.