

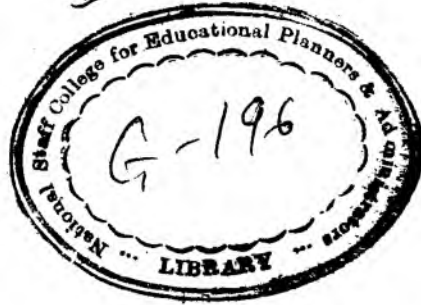
# THE FIELD OF EDUCATION

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## FOREWORD

This publication is the result of yet another cooperative venture sponsored by the Ministry of Education—cooperation between the Ministry and **The Statesman** which has been good enough to allow us to bring together, in book form, certain selected articles published under its feature “The Field of Education”. As Education spreads wider and democratic forces are set in motion, almost every field of activity becomes of closer concern to the public which must learn to take an intelligent interest in its proper direction. Education is, in particular, no specialists’ paradise. Its objectives and purposes, its methods and techniques and its end results impinge on the everyday life of the people both directly and indirectly and they have the right to know and criticise as well as appreciate what is being done in the field of education.

In this series of articles, a number of educationists and others interested in education—including a student, which is a welcome innovation—have dealt with a variety of educational problems : teaching of different school subjects, Basic education, a mountaineering course, the education of girls, etc. The articles are naturally of varying merit but they all give evidence of keen interest in their special problems and have been written for the non-specialist, educated public.

The object in publishing them in this form is to ensure that they reach a wider or rather a different, group of readers including parents and teachers and stimulate useful discussion of some of the issues raised. The views expressed in the articles are, of course, those of the individual writers and not of **The Statesman** or of the Ministry of Education. The Ministry, however, welcomes the expressions of different viewpoints, because it is through their friendly clash and contact that confusion of ideas can be clarified.

I should like to thank the Editor of **The Statesman** for permission to publish these articles in book form.

CAMP TARADEVI,  
*June 15, 1957.*

K. G. SAIYIDAIN  
*Educational Adviser to the  
Government of India.*



## INTRODUCTION

When the notion of starting the Field of Education feature in *The Statesman* first took shape in July, 1954, the ideas behind it were relatively simple. In India today it is impossible to escape educational problems and difficulties; they impinge on every individual whether as parent, administrator, teacher, student—or merely as an intelligent citizen.

Such questions can be of several different kinds. They may be specialised, as whether the intermediate examination should be abolished, whether multipurpose schools will work or whether a teachers' training course should cover three or four years. Or they may be much more general: why are university students indisciplined, is there any point in Nursery schools, or would education in a Basic school or public school fit a young person for the complex responsibilities of life in modern India. Not the general questions only, but even the more specialised ones often contain implications of principles which concern ordinary men and women and about which they ought to be informed.

Through *The Field of Education* there was an attempt to encourage the discussion of educational problems, even if they were controversial; controversy was, in fact, welcomed because it implied that the point of view opposed was stimulating.

The response was surprisingly good; far more articles were submitted than could possibly be used and the volume of correspondence was large. There were, of course, difficulties; contributions from students were disappointingly few, and those from others tended to be either so detailed as to have little general interest, or diffusely general. Too often it was forgotten that in style and content a daily paper is altogether different from a learned journal or a periodical review.

Despite such misconceptions, there was always an adequate supply of usable material to choose from, much of it remarkably good. As time passed there were numerous requests for back issues and suggestions that the articles should be reprinted in more durable form.

This has now been possible through the kindness of the Central Ministry of Education who have undertaken to publish a selection from the feature. The object in publishing it is to transfer the discussion of educational questions to an even wider public. Approving this aim, the writers have willingly permitted their articles to be reprinted, and, if this selection helps to bring about greater awareness and interest in education, the original purpose behind *The Field of Education* will have been satisfyingly fulfilled.

STATESMAN HOUSE,  
CALCUTTA.

CHANCHAL SARKAR.

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## SOME REFLECTIONS ON EFFECTIVE TEACHING

—J. M. GIBSON

What is it about Basic education that has exalted it to a new sort of mystic educational cult with a creed as fiercely held and as variously interpreted as any other, and with a power, together with the latest "Open Sesame" multipurpose, of extracting financial assistance from the most tightfisted Ds.P.I and Ministers of Education?

No longer, I think, the original idea that school children could pay their expenses by selling what they produced. The only way that could be achieved, I once suggested to a scandalized audience of the faithful, would be by a form of industrial chemistry, by fitting up the school laboratories with spirit stills and marketing the product through Government bootleggers.

But, to be more serious, surely one of the great appeals of Basic, and for the matter of that of multipurpose education too, is that they offer an escape from the textbook complex. At present far too much teaching is limited to the class textbook, only too often inadequate and ill-printed. Teachers are content to, and sometimes too ignorant to do more than, restrict themselves to what is between its covers. Parents write and ask for information on the portion to be read so that their wards can "cover it up" in the holidays. The pupils are bored by it.

### A GREAT CHANCE

Basic education, however, offers us a chance to relate what we teach in the classrooms to the life and daily experience of the pupils, to bridge the gap between book learning and life, and thus to make our teaching more vivid, real, and concrete. Quiller—Couch in his famous essay on "Jargon" advises a writer to struggle always for the concrete noun, like Shakespeare, who, in phrase after phrase, is always forcing us to touch and see. If this is a sound principle in writing it is certainly also a sound principle for much teaching.

Not all teachers are fortunate enough to be able to compel attention by the wit with which they express themselves or the charm of their manner, but my experience has been that if they are interested in their subject themselves they can almost always arouse interest in others. I should say, therefore, that the first essential for effective teaching is continued interest in one's subject, continued reading about it, and frequent application and illustration of the textbook theory to and by the pupil's own experience and surroundings. This is no new idea, but how many of us take the trouble to apply it? We should find out about local customs and relate them to the study of civics, base some of our mathematics on school accounts or a survey of the school grounds, in chemistry analyse our soil and water, and so on. I remember the history master at my own old school talking of the tyranny that so often

follows a revolution. He produced from his pocket a money note issued under Robespierre. On it were printed the French words for "Liberty, Equality, Brotherhood", and then in large black letters "or Death". I understood, and the lesson has remained in my mind these 30 years or more. If such material is readily available in a school museum, how much more live and effective lessons can be.

### "METHODS COURSE"

During World War II, to help turn the large number who had to teach without previous experience into efficient instructors, the Army evolved a "Method Course". All sorts of problems were studied: how long the average person under instruction could be expected to concentrate his attention, effective methods of training through visual and auditive aids, the graphic or dramatic presentation of ideas, and so on; and on the basis of this research a routine of how to lecture was drawn up; so many minutes devoted to lecturing, so many to a film or a dramatic presentation, so many to question, answer and discussion, so many to a break for a smoke, and so many to a final summary. "Methods Factories" were set up to supply the instructors with all that they needed; anything from a rabbit out of a hat, to a fossil, working models, charts or gramophone records. The instructor was expected to prepare for each of his periods with great care and to submit to the Chief Instructor his lecture plan with details of exactly how he planned to spend the period.

In these ways the Army achieved a great deal more than, in the circumstances, would otherwise have been possible and there is no doubt that a "Methods Factory" in any school would be of very great assistance. It could combine the roles of museum, drawing office, printing press, and library of pictures, films, slides and gramophone records. That may be more than we can afford the funds for, but we can all collect material useful to bring our lessons alive. As to the planning of our periods, I do not believe that this should be too rigid. Unlike in a university or Army class, when the lecturer, because of the number of his audience, is bound to hold the floor most of the time, in a school learning should be a matter of cooperative activity between the teacher and the class. The plan at the back of your mind has often to be adapted to the part the pupils play.

Perhaps geography is the best school subject for the application of ideas such as these. It can be related from the start to the surroundings. A school meteorological station gives practice in accurate measurement and recording. Local seasonal changes and their effects on people, animals and crops make it more easy to appreciate descriptions of foreign countries. Through geography greater reality can be given to the teaching of other school subjects: the development of geometry to measure the earth and understand its movements; trigonometry used in map making; the effects of freezing, regelation and solubility; the biology



of local plant and animal life ; the chemistry of iron and non-ferrous metals, fertilizers and foods ; the history of the Age of Discovery and the building of railroads, canals and airways, the economic effects of these ; the handicrafts involved in making relief maps and models ; charts and diagrams drawn in the art school. A live geography department can do more perhaps than any other to give real meaning to the teaching throughout the school.

### COOPERATIVE ACTIVITY

But perhaps I labour the obvious. I started this article with a frivolous suggestion ; I shall end it lightheartedly too. When I wrote of cooperative activity between the teacher and his class I had in mind a good deal of oral question and answer. I was once revising with a class the crops grown in different countries. I found them bad at remembering the dates of sowing and harvest, so I devised a game. Here is an account of it :

*Self* (to the class): "You may invest five rupees of your pocket money in farming operations anywhere in the world. If you plant your crop at the correct time, cultivate it properly, and harvest it when it should be ready, you will make a profit. If you make mistakes you will lose. Also, to teach you something of the realities of life, I have here a spinning pointer and a board. Farming you know, is something of a gamble. From time to time I shall spin the pointer. On the board are written some of the hazards of farming: floods, drought, monkeys, market speculators, food shortage elsewhere, perfect weather, and so on. You will have, like the farmer, to accept these. According to where the pointer comes to rest your profits and losses will be increased or diminished." (Then, turning to someone not likely to bankrupt me at the first operation) "Vedniti, what about raising a crop of wheat on the prairies? How much would you like to invest with the prospect of a 20% profit?"

*Vedniti*: "Five rupees, Sir."

*Self*: "Very well. When will you sow your wheat?"

*Vedniti*: "In March."

*Self*: "That is very unfortunate for you, for the soil will still be frozen stiff ; you will be unable to plough it, and you lose your capital."

With five rupees in hand I am prepared to risk someone more likely to know the answers, so I say to Raja: "How much would you like to invest in Canadian wheat?"

More cautious, and I regret to say, less confident, he replies ; "One rupee, Sir". He sows his wheat correctly in April, and harvests it at the right time, so I offer him his 20%.

*Self*: "Correct. How much do you earn?"

*Raja*: "Two annas."

*Self*: "If your accounting is as inaccurate as that, that is all you will get."

Feeling that the profit motive has now been whetted, I turn to Vijai and suggest that he should raise a crop of Egyptian cotton.

*Self*: "How much do you wish to invest?"

*Vijai*: "I don't wish to invest anything."

*Self*: "The Government cannot allow capitalists to hoard. Their capital must be fruitful. I shall impose a levy of five rupees as a lesson to you."

*Vijai*: "Sir!"

*Self*: "You know very well what General Neguib did with that landowner. You're lucky to get off so lightly."

Moolgaokar had already lost three rupees when he said he would like to invest in Nilgiri potatoes (he had looked up the dates while he thought I wasn't watching). He said he would like "double or quits". I agree that this sounds like real gambling and indeed I did not allow it, but pointed out that a farmer would be lucky to make a profit of 100%, and told him that he might invest the sum necessary to make up the loss of Rs. 3 by making a profit.

It took him, with the audible help of his neighbours, some time to work out what capital was needed, but eventually he offered the requisite Rs. 12.

*Self*: "Can you give me a cheque?"

*Moolgaokar*: "I'm afraid I'm overdrawn".

*Self*: "Well, when you are a farmer and wish to borrow money from the bank, you will find they demand a security. What can you offer?"

*Moolgaokar*: "How about my shirt, Sir?"

*Self*: "That is a traditional final pledge, and I will overlook the fact that yours is inkstained." He sowed and dug his crop correctly, but the calculation of percentages had obviously upset his memory of dates. He turned to his neighbours once more for advice. "No, no." I said, "No more help." "Why not?" he countered, "I've taken them into partnership. We've formed a cooperative society." I felt that if I disallowed this I might have the police complaining that I was guilty of anti-social propaganda. I did not want his shirt, though I was eager to hear what his housemaster said when he arrived for lunch without it. However I felt that a lesson in the benefits of cooperation should outweigh my personal interests, so I accepted his answer and played my last card. I spun the pointer and it came to rest at "Crop destroyed by swarm of locusts".

*Moolgaokar*: "But locusts don't visit the Nilgiris."

*Self* (rather feebly): "They might."

*Almost everyone*: "No, no, no cheating."

Fortunately at that moment the bell went.

## THE EXTENSION PATTERN IN INDIA

—EVELYN WOOD

“EXTENSION is out-of-school education.” This well-worn definition is too general to describe what has been growing for three years in India. Our needs here are not to extend new knowledge to the whole body of citizens who think they have not got enough out of the school or university. That is the English design of University Extension. In India, we need to link knowledge specifically with rural people, and with the definite object of causing a more satisfying as well as more productive life to rise again in our villages.

No country, with the exception of Napoleonic France, has ever attempted quite this kind of all-round effort with peasants. In America which coined the word “Extension” the demand for more Adult education began from the rural people themselves. In India the idea of acquiring more knowledge after school (if any) has still to be accepted by the majority of village folk. In America the demand concentrated on the new knowledge and skills which were being built up in universities (and other urban institutions) and which had a direct bearing on better farming, and on the improvement of the farmer’s base, his home. Certainly the idea of community formation or action never had to be taught in rural America.

The patterns of Extension are nowadays very similar in European countries: farming and home life are again the principal subjects carried. As in America, health is quite separated from these technical subjects, and it depends on a professional service which is not allied with Extension. Engineering is yet another technical service in which there are plenty of specialists to do rural work, where it is necessary; but education in engineering has never been thought to be necessary for rural folk in the West.

This sort of restricted Extension design will not serve in India. We need a total attempt to revitalise the whole of village life and work. No specialised subjects can be excluded from a design for realistic Extension work in our villages. As a matter of fact, nearly half the rural improvements needed cannot be primarily aimed at farmers and their families. It cannot be more than half the load of an Extension service to cater for the owner-cultivator, who corresponds, though at a much lower level of skill and economic power to the independent farmer of North America. Almost half of Extension’s work in India must be to bring new knowledge and skills to the artisans, traders, and of course the labourers in the villages. Both health-maintaining practices and engineering technology or anyway its crude practice are two crying needs for teaching in every village.

### THREE SYSTEMS

Three major designs for Extension service are actually being worked in India today. It is good that there should be different approaches to

the solution of such a huge total-life problem. Doubtless too, the dividing regional patterns will produce many more variations in Extension work. But we had better begin by considering some description of Extension's necessarily common features.

All three Extension systems recognise, in varying degrees a need for the new adult-educators—the Extension staffs—to know more about village life. Rural problems, like all human problems, are ever fresh. Naturally, too, they change, with a trend towards greater complexity, as education advances in the village. The problems of villagers have to be much more clearly and thoroughly known both by those who will carry adult education there and also by the institutions of research and techniques from which the educators draw the newer forms of knowledge and skills which are to be “extended”. Obviously, unless the current village-problems are brought for solution to those—mainly urbanised—groups which specialise in developing the new knowledge and skills, there cannot be new solutions in the villages.

Two of the systems of Extension now working in India accord more verbal than practical recognition to this need for a two-way channel of communication in the educational process. Yet the principle is clearly essential, as more than theory, to all Extension in India. It is probably as necessary to all forms of education in the villages, as long as that education is designed by non-villagers. In fact, everyone but the extreme, political type of social worker has now come to realise that none of us knows more than a fraction of what is necessary to Extension about the niceties of village life and work.

This ignorance on the part of Extension staff is, happily, diminishing, and quite rapidly as far as the actual field-workers are concerned. While such a general lack of knowledge about the “pupils” continues especially among the upper cadres in Extension teaching, the capacity of the new service as the carrier of a liberal education will be very limited.

The target in the distance for this kind of educational liberalism is that village folk should use the Extension service as their off-campus university. By learning to collect and weigh evidence about new ideas and practices, as compared with their own traditional ways of thought and action choices can be established which will be founded on reason, and not antique authority or habit.

Here, however, we come to a sharp edge of difference between the three working Extension systems. The degree of liberalism in the educational content and method offered to village adults is the principal variable between not only the three major systems, but also between the ways in which each of the States is now working out its Extension field-services. These differences are growing fast, as the States take more control of Extension from the Community Projects Administration.

#### SARVODAYA VS. EMPIRICISM

Nearest to the old principle of “village-uplift”, according to which the villager can have no say in the manner or the matter of his uplift-

ment, come the Sarvodaya workers. The practitioners of this principle believe in Gandhiji's principle of entirely self-sufficient villages ; but that sufficiency, they hold is to standards which are to be determined by the uplifters, not by the villagers. This personal attitude is seen among most Extension staffs, verbal denials notwithstanding. But only in small, negligible groups is this principle formally accepted and organised as Extension service.

Of the three major Extension systems, what may be called the Vidyapeeth educational pattern comes nearest to the Sarvodaya concept. In the Vidyapeeth system, the brighter lads of the village are selected, in the late adolescence, to be taught new knowledge and skills at an academic institution of the "basic" order. The boys are trained and generally brushed up with high-principled thinking about village affairs for a year or two. They are then returned to their villages, without any provision of additional capital, better implements or other means to help them act as the leaven or the practical example of advanced living and working which they are supposed to be.

Even so, if there were a regular follow-up of such Vidyapeeth-educated villagers ; if they were continuously supported from outside in an advanced campaign for improvements in the villages, this system would rank as highly-polarised Extension ; the boys themselves could develop, though slowly, into effective Extension teachers. Except in a very few places, the Vidyapeeth system has not yet got as far as these developments, and it shows little present signs of doing so. But it is a valuable approach to rural regeneration, and its development may come later, all the better for being gradual.

### ETAWAH EXPERIMENT

The second major system derives from what is famous as the Etawah experiment ; an Extension drive in Uttar Pradesh area which borrowed largely from American practice. In this system educational liberalism is much desired, but somehow it seems that the villagers do not become very effective in establishing their pattern of what they want to learn. On the whole, this planned approach, with the planning inescapably (so far) stemming from the urbanised fringe to Extension field-services is, or was, the original model for most of the official Extension services in India. This system surely has the capacity to draw more from village people than it has so far succeeded in doing. Probably its continued exterior character is due to the inordinate hurry with which the services have been pushed into villages. Sooner or later the work will probably settle to villagers' tempo, and then much more profound results may be expected.

The third major system has been carried into practice only in a few rather isolated projects, many of which are non-official. In essence, the principle of Extension service by this system is to start with a bare

minimum of planning from outside sufficient only to get a practical contact and the relationship of a trusted friend for every Extension field-worker in the villages. Once this aim is attained, after six months or so it is then possible to start planning with the villagers for the *content* of the education which they feel that they require. The association of village people with a choice of educational *methods* comes later, and will probably be confined for many years yet to a few distinguished villagers.

## DOUBTS ABOUT BASIC EDUCATION

—J. A. K. MARTYN

May one to whom it seems there is a certain amount of confused thinking on the subject of Basic education seek clarification through your columns? In the first place, let it be said that there is much in Basic education which is extremely good. The more of activity that can be brought into education the deeper will be the effect on the personality.

The introduction of crafts has this value as well as teaching the dignity of labour. Sometimes the craft itself, sometimes more or less allied activities, can lead on in various ways to the service of the community and so bring the school into closer relationship with the social background and at the same time instil the ideals of social service. Children through craft activities can learn a more practical approach to life and also how to cooperate with each other. These are perhaps the main benefits to be derived from the introduction of craft activities: a more practical approach to life, more deeply awakened personalities, a better knowledge of the social background and a stronger desire to serve the community.

The second point which it seems necessary to make is that in the form in which Basic education has been so far advocated there are some features of doubtful educational value. Of these the first is that the craft should be profit-making. If this was urged as a temporary financial expediency and if the profits could be made without reducing the educational value of the craft there would be no objection. It is, however, claimed that a profit-making craft will be *ipso facto* of greater educational value than a non-profit-making craft. This is a fallacy. In selecting a craft, consideration can be paid to its educational value or to its economic value, that is, the possibility of marketing the products. Adequate consideration cannot be given to both requirements at the same time and making things that will have a ready market is unlikely to mean that the child will be making the things which will demand higher degrees of skill and greater exercise of his imagination.

### GETTING FULL VALUE

For example, it is common for spinning to be chosen as the basic craft simply because its products are easily marketable, but spinning has limited value as an educational activity. Or if carpentry was the basic craft, in order to make profits it might well be necessary to confine the children to making some extremely simple and standardised objects simply because they commanded a ready market. To get the maximum educational value out of a craft children must be able to proceed to articles demanding higher degrees of skill and greater exercise of imagination. When, however, anyone ventures to criticise the idea that

children's products should be marketable the defence usually made is that this will ensure a high standard of workmanship. A high standard of workmanship could be achieved in other ways and this defence is no answer to the objections just raised.

The extreme apostles of Basic education claim that the sale of products should cover the salaries of the teachers. This is hardly likely even at the present low scale of teachers' salaries. It would be out of the question were teachers reasonably well paid. When one hears of a school where, in order that this objective may be achieved, children spin for almost as many hours as they sleep, and when such a school is spoken of with admiration, surely it becomes clear that there is something wrong with this particular aspect of Basic education. In point of fact such a system of child labour is evidently not as widespread as one might fear, and from figures supplied by the States to the Central Government it is evident that Basic schools are not infrequently more costly than ordinary schools.

A second feature of Basic education to which objection must be raised is that all subjects should be centred round a central craft and taught as they arise out of the practice of the craft. For example, if the central craft is spinning, arithmetic may be taught by counting the amount of yarn that has been spun, geometry from examination of the spinning wheel, history from an inquiry into the decline of Indian textile manufactures, and geography by considering the suitability of various soils for growing cotton.

## INTRODUCTION

This suggestion corresponds to many attempts that have been made in various countries to relate learning to the child's experience. It may not be a suitable way of introducing village children to academic subjects. It would, however, surely be absurd to suggest that learning must always be restricted to what can be hitched on to the daily experiences of life. Sooner or later a child must become accustomed to pursuing learning along the normal approaches. It may be the first step that counts, but it would be misleading to think that by making the first step easier all the subsequent steps are also made easy. If, therefore, there are limitations to the possibility of centring all learning round a craft there would seem to be less need for there to be one central craft. There should be less objection to a school experimenting with a variety of crafts.

It was indicated above that the extreme supporters of Basic education indulged in the hope that in choosing the craft that was most profitable they also choose the craft that was most educational. Actually their wishful thinking goes further than this. They hope also that the craft which will pay best and develop the personality best will also be the craft by which the child will afterwards earn his living. At least sometimes what they say has this implication. This is trying to kill too



many birds with one stone. A Basic school cannot automatically claim to fulfil the functions of a Technical school, and the more the teaching is centred round a single craft the less can this claim be valid.

At the present time it seems that supporters of Basic education fall into two types who might be described as rigid adherents and the broad apologists. Let it be admitted that some of those who are being described as rigid adherents are running schools on thoroughly basic principles with a considerable measure of success and in which a wonderful spirit prevails. But they are able men and enthusiasts, and able enthusiasts can make almost any system work. This does not prove that the system is universally applicable. If the criticisms made above are at all valid the system is not universally applicable. It is more easily to be applied in villages against the background of handicrafts and cottage industries and here Basic schools are most widely established. Naturally therefore a feeling has arisen that they are more suitable for the countryside, which demands a less high standard of education than the cities.

#### CLEAVAGE IN SYSTEM

At present there is a cleavage in the educational system, already well established at the primary stage and about to invade the secondary stage. That this is highly undesirable has been pointed out by the Ford Foundation team, but no solution has been suggested. The rigid adherents of Basic education sit tight in their fortresses, thundering forth demands that Government must speed up plans for the establishment of more and more completely Basic schools and that city schools must adopt basic methods. But this process is slow.

In addition to the rigid adherents there are what I have called the broad apologists. When aspects of Basic education have been criticised they have been known to say that Basic education is not a matter of methodology but a matter of attitude and approach. Very evidently they believe profoundly in the good aspects of Basic education but it is at least possible that they have doubts about the aspects that have been criticised in this article.

What was in many ways a most admirable statement "clarifying the concept of Basic education" was recently issued by Mr. Shriman Narayan and Mr. K. G. Saiyidain. There is not the space here to quote it all, and no need to quote the parts of it about which nobody could quarrel. What is perhaps interesting is the somewhat subdued reference to the self-sufficiency aspect of Basic education—"It is also to be clearly understood that the sale of products of craft work will meet some part of the expenditure incurred in running the school or that the products will be used by the school children for getting a midday meal or a school uniform or help to provide some of the school furniture and equipment".

This is surely using the soft pedal as compared with the claims of the rigid adherents. On the other hand "in the choice of basic crafts...

we should adopt a liberal approach and make use of such crafts as have significance from the point of view of intellectual content, provide scope for progressive development of knowledge and practical efficiency". And after asserting that "the curricular content should be intelligently related to three main centres of correlation, viz., craft work, the natural environment and the social environment" they go on to warn that this "should not be taken to mean that the study of books can be ignored".

The effect on the present writer of this statement was that the clarified concept of Basic education was one that could to some degree be put into practice by almost any school in the country. If this is the case, what purpose is served by the existence of special schools known as Basic schools, which stand apart as if they were the exponents of some mystery beyond the reach of the uninitiated teacher? Surely the existence of a separate system of education is not merely unnecessary but positively harmful. All schools should have the freedom to be as Basic as they can, and by degrees the rigid line between Basic and Non-Basic should be allowed to disappear.

## VOCATIONAL GUIDANCE IN SCHOOLS

—LINA RAY

When Bacon said "They are happy men whose natures sort with their vocations," he little realised that vocational psychologists would repeat it in the twentieth century. It is only natural that a man should want an occupation which he can perform well because, apart from financial gain, the other reward that success brings with it is mental peace. Nowadays however we hear more of occupational misfits than of men well adjusted to their jobs.

Grumbling, dissatisfied young men, frustrated in ambition, are seen everywhere—in buses, trams, wayside cafes and cinemas, discussing with vehemence the inability of the Government to provide them with jobs. But the real reason for their frustration is not even known or, rather, realised by them. It is because they left school with no guidance about the choice of a career and, after blindly following the family tradition by passing the degree of the post-graduate examination, they find they are not competent for the occupations they want to pursue. That is why the establishment of multipurpose schools cannot but be welcome to psychologists, who realise that the success or failure of multipurpose schools will depend only on vocational guidance; and none but the psychologist is capable of guiding a child in the choice of vocational subjects with an eye to the future occupation.

Several other factors influence one's choice of a career. The first factor is the father's influence. It often happens that the father wanted to be a doctor or an engineer, but, being unable to realise those ambitions, later wants to satisfy his ego by demanding that his son should follow the career which he once wanted. The son is thus driven into a profession in which he finds himself a misfit. An even greater tragedy in a son's life is when the father is so haunted by his own failure in his vocation that he debars his offspring from repeating the same "mistake". Unfortunately for both, the father does not understand the hard truth that his son may succeed where he has failed because the son has the abilities and temperament for the job.

### FINANCIAL GAIN

The other factor that generally influences choice of a career in a middle class family is the consideration of monetary returns expected from the job. Economic pressure drives many a young, ambitious man to take up any job that enables him to make ends meet. Years after he realises his mistake, when dissatisfaction with his work begins to affect his health, both physical and mental, but then it is too late. There are also instances when the "safety-first" temperament of parents leads a young man to choose a "safe" occupation when he may be tempera-

mentally fitted to be a test pilot, or when the youngest child of the family is compelled to give up a chance of serving abroad because his mother just cannot let him out of her sight.

These may seem less serious considerations that influence choice of an occupation, but they have an important and direct bearing on future success. It is the duty of the counsellor to remember them while helping a student to choose a calling. But these are not all. Added to these are considerations of health, family status, temperament, general intelligence and special aptitudes.

Vocational guidance means assistance offered in "choosing, preparing for, entering upon and making progress in an occupation." When should one choose? Some maintain that the best time is before the student leaves school, while others affirm that no choice should be made before the student graduates. Actually there can be no fixed rule. For some who want non-academic careers, the choice should be made when the student is in the penultimate class of the modern secondary school; for these academic careers, advice should be offered when they are at college. But for all it is essential that while they are in the penultimate class in school, consultation with the psychologist should give them a clear picture of different occupations.

Study of occupations serves at least one valuable purpose—that of drawing the attention of pupils to their own interests, aptitudes and abilities. Having done this, the psychologist should try to ascertain their interests by means of interest inventories and questionnaires. There are many good "blanks" at present available for the purpose. Mention may be made of Strong's Vocational Interest Blank, which has served as the most dependable means of ascertaining interests. Whatever "blank" is used, it is essential to remember that a good one should draw the attention of the pupil to his interests, which otherwise would not have been possible.

#### SPECIAL APTITUDES

After ascertaining the interests, steps should be taken to learn the student's general intelligence and special aptitudes. The suggestion in some quarters that general intelligence alone is sufficient for vocational guidance is fallacious, because people of high intelligence have been found unfit for certain occupations which call for special abilities. Besides, several occupations demand the same kind of abilities; for example F.M. Earle in his psychology and Choice of Career points out that linguistic abilities are demanded by the occupations of editor, diplomat and professor, while mechanical abilities are required by the watchmaker, silversmith, engineer and architect. Should the child choose the life of a silversmith or of an engineer? Unless the vocational psychologist knows his special aptitudes, he cannot advise him. So, after learning the child's interests and general intelligence, the coun-

sellor should administer special aptitudes tests. A personal interview should then follow.

But the duties of the school do not end here. No vocational guidance is complete unless it assists the student in getting a job. In other words an efficient programme of vocational guidance should include placement. The school should keep in contact with industrial establishments and remain informed about their needs and vacancies. For this there must be a placement and follow-up department which should follow the careers of students after they leave school. In this way valuable assistance can be rendered to pupils in their choice of occupation. It is essential that every secondary school should open a vocational guidance bureau with a trained psychologist in charge. No guidance bureau, however, can function well if it is not helped by three other persons ; the parent, the family doctor and the teacher, who can throw light on the student's temperament, health and educability.

Too much should not be expected of the psychologist, for he can only suggest how best the individual can adjust himself to his job and how far he might succeed. Perhaps in the future our schools will have a Careers Master on their staffs and be able to help square pegs to fit square holes.

Psychology also hopes to extend its services to the emotionally unstable by helping them, to adjust themselves to their occupations. For a maladjusted individual is a menace to society and the bitterness which he spreads not only kills his own initiative and mental peace but that of all those around him.

## EDUCATION AND CAREERS FOR WOMEN

—MASHKOOR A. SYED

The article "Special objectives in Girls' Secondary Education" which appeared in "The Field of Education" in April, rightly emphasised the importance of a separate curriculum for girls. The reasons advanced for this by the author were that parents were concerned for the marriage of their daughters and did not want them to work in a factory or office.

Common observation in our society reveals the truth of these reasons. In most cases higher education for girls seems to have a value in the "marriage-market". It is also an effort to mitigate the evils of the dowry system. The poser "...is it the school's job to try to develop each individual's aptitudes and potentialities so that the fullest possible use can be made of them in any walk of life?", has not been answered properly. No doubt, general education is important for producing responsible citizens, and as such has its place in the curriculum. But, to say it is the sole aim of the school is, perhaps, not correct. The aim and orientation of guidance is not to make the fullest use of aptitudes and potentialities of the individual in any walk of life, but to assess his interests, abilities and aptitudes and then prepare him for the best he is capable of.

### EXAMINATIONS

Criticism of examinations can be justified only when the essay-type examination is meant. Concrete efforts are being made to do away with the evils of this. Recently the Aligarh University has set up a unit for psychometric research, which aims at supplementing the essay-type with what are called the objective-tests.

The remark of the Secondary Education Commission that there is no need for a separate discussion of girls' education "at the present stage of our social evolution", seems to disclose a shirking of a discussion of this important problem.

In this connexion mention must be made of two efforts made in this direction. (1) The school for girls at Banasthali near Jaipur, run by Shri H. L. Shastri, sometime Chief Minister of Rajasthan. (2) The Mahila Shiksha Sadan at Hatundi near Ajmer. This school was also run and managed by the Chief Minister of the State, Shri Haribhau Upadhyaya, who started the school long before he assumed the responsibilities of a Chief Minister. The latter school depended largely on private resources and its curriculum ran from gaoshala maintenance training, riding, spinning, music, fine arts and domestic science to literature, social and natural sciences. Women coming out from such institutions will definitely prove a boon to the country.

The principle underlying such pioneering works is not the biological difference theory of the sexes, but psychological differences in the make-up of the two and the place of women in society. The leading article

“Eve and Equality” in the Statesman of April 26 neglected the psychological needs and differences of the two sexes. The joint study of the I.L.O. and U.N.E.S.C.O. referred to in the leader is, perhaps, a survey of existing conditions and not an investigation of the desirability and suitability of vocations for women.

### EQUALITY

It is true that equal opportunities are denied to women in most countries of the world on grounds not always biological. Such discrimination against sex may not always be justified. But discrimination on biological grounds has its merits. Employment of women in some jobs does result in wastage of time and inefficiency; maternity absences, although inevitable, do result in loss of time.

Equality, however, is not only a biological concept. In most cases, it is regarded as an ethical one. From the moralist's point of view, humanity should be treated equally in all respects. If it is so, it may be said that the ideal has never been achieved, nor is it one which is likely to be. It may, again, be argued that it is equality of opportunity which is the ideal and not the absolute equality emphasised by the moral philosopher. Now, the word “opportunity” requires a penetrating examination. Can an uneducated person have the same opportunities for employment as an educated one? Or are the opportunities open for one category of persons also open to other categories? The answer is in the negative. The concept therefore should not be of equality of opportunities, but equality of proper opportunities.

Equality of proper opportunities is not only an ethical concept but also a bio-psychological concept, and more properly so. No two persons are the same in their biological heredity and psychological make-up. The idea of equality of sexes is as erroneous as the slogan of “equal distribution of wealth”, and hence misleading. It is the psychological needs of the person which determine his adjustment and efficiency in a job, that is, his material and psychological well being, his happiness. This should be the aim of all education; and educational planning should be tested on this condition.

### FIELD STUDIES

What do modern women aspire for? What are their psychological needs? How can they live a happy life? Such questions must be answered in order to plan education for women. They should be given an education which is in harmony with their avocations in life.

Unfortunately, we do not have any study conducted on these lines in India. In America such studies abound and are perhaps relevant in assessing the aims of Indian women, at least for the time being. We can rely on the results of these studies on the reasonable assumption that

Indian women are much more "conservative" than their American counterparts. The fact that we are passing through a transitional period of cultural change may give different results in such studies if conducted at this period in our urban society. But, one must be cautious enough to take such results seriously. In order to conduct such studies in India, one has to wait for proper conditions. It is difficult to agree with the Union Health Minister's statement made some time ago that "a girl's first aim should be to fit herself for a vocation and marriage should be a secondary consideration". The state urges a pattern which cannot be the ideal for an average woman.

The researches of Professor Eli Ginzberg, of Columbia University, and his associates in the field of vocational choice give results which throw considerable light on the attitudes of women towards careers. Comparing the orientations of boys and girls, they say that the primary focus of girls is on marriage and the type of life they will lead as wives and mothers. Girls "too, have an interest in work, but for most of them planning for marriage and a family is central and the work problem is peripheral".

When we compare the results of the interviews of the two sexes, we find that boys think of marriage as an eventuality which can be delayed until completing their education and getting a job. The girls have an opposite attitude which must be appreciated in order to understand their approach to careers. By their late teens and early twenties, marriage and a family become the prime concern of girls.

The investigators have divided the female group into three categories: work-oriented, marriage-oriented, and the combined approach of marriage and work. In their whole study they have found only one girl who is work-oriented. Of this one person they say "Maud is willing to entertain the possibility that she will marry, not immediately but in her late twenties". Thus, we find that the only work-oriented girl in the group is also less concerned about an occupational choice than are the men. Those who have a combined goal express themselves in this way "College is a means of spending four years getting an education, getting a degree, taking a major because you have to, but still not having a job in mind". When asked about the attitude of the majority of her classmates, one of the subjects says "Most of my friends think marriage is more important and a career will fit into it, all according to what happens". The researchers conclude by saying "The girls are thinking of and planning for their future primarily in terms of marriage; every thing else falls into a subsidiary position. Because of this they are not deeply concerned about an occupation".

There are many more studies to this effect but we can safely make reserved generalisations on the results of the one quoted above. Education of women should be planned on lines which prepare them for vocations satisfying their psychological needs. Teaching (of boys at the kindergarten and primary level) of girls at all levels, nursing, medicine in some specialised branches such as infant and female diseases, music,



dancing, painting and other fine arts, are some of the vocations for women. Jobs for women, on the whole, should not be such whole-time ones which do not allow them time for activities at home and rob them of their charm of life, looking after children, the husband, day to day household affairs, etc. Vocations pointed out here are, by no means, comprehensive. What is emphasised is the general line of planning women's education with a vocational-orientation. Possibilities of exceptions in the vocational goals of women cannot be ruled out. But it is, perhaps, correct to say that deviations will be few.

## SPECIAL OBJECTIVES IN GIRLS' SECONDARY EDUCATION

—B. G. GHATE

Under the second Five-Year Plan large sums will be spent on girls' education. The number of girls attending school has been increasing much more slowly than the number of boys, and everyone is agreed that this neglect should be remedied. Yet comparatively little thought seems to have been given about the kind of education we want for our girls.

Should it be the same as for boys or different? Do we agree with the Union Health Minister who said recently that a girl's first aim should be to fit herself for a vocation, and marriage should be a secondary consideration; or with the great majority of parents who consider marriage the first consideration? Or is it the school's job to try to develop each individual's aptitudes and potentialities so that the fullest possible use can be made of them in any walk of life? This is the ideal with which most educationists would agree for both sexes, but they do not seem to consider that its implications for girls, at least in the high school stage, may need special thought.

The Secondary Education Commission, for instance, devotes to girls three pages out of a total 300, saying that there is no need for a separate discussion of girls' education "at the present stage of our social evolution". This seems a questionable proposition, and it may make a practical difference, since in the coming Plan period reforms in Secondary schools will be based mainly on the Commission's recommendations.

### NARROW TRADITION

Nobody connected with girls' education in India today would deny that the traditional narrow and examination-ridden system is particularly hard on girls. For a boy the standard pattern of matric, inter, B.A., at least has the justification that he believes it to be the route to a career, which is his own conscious aim and that of his parents. For the average girl there is no such clear link whether in the village school where she spells out her reader in expressionless chorus, or in college where she strives to grasp the rudiments of monetary theory or constitutional law; there is no obvious connection between her work and her future life; School and College are in fact working at cross purposes with the home, and this must account for much of the apathy and "It's all right if I scrape through" attitude so common today.

Nor do recent innovations inspire confidence that educational authorities have given much consideration to the needs of girls. Take for instance the introduction of the National Cadet Corps in girls' schools. The ideals of the N.C.C. are doubtless admirable, but from

an educational point of view it is surely arguable whether something so foreign to the traditions of the country is really what we want for our girls. Could not the time and money spent on parades and camps, and on giving teachers elaborate training as officers, be better used; and could not discipline, physical fitness and outdoor skills be taught in other constructive contexts?

Another recent development is the prominence of inter-school sports and athletics. In so far as they encourage physical education they are excellent, but in practice it is apt to mean that a small group of selected girls spend day after day going through the monotonous movements of "squad drill" and "P.T.," which may be suitable for boys but certainly are not for girls. Physical education should be for every girl in the school every day and could take so many different forms. Why not Indian dancing, for instance?

As for the main proposals of the Secondary Education Commission, the one most likely soon to be widely implemented is the establishment of multipurpose schools, with alternative courses for specialised study in the higher classes. In its aim of providing for individual aptitudes this is an admirable plan, but with girls' needs in mind we may hope that it will not in practice mean merely a wider choice of subjects to be taken for the final examination. Home Science, for instance, is suggested by the Commission as one of the alternative specialised groups. There are four subjects in this group, of which three must be taken by whoever chooses the group. They are home economics, nutrition and cookery, mothercraft and child care and household management and home nursing. Now it is only too easy to imagine the treatment of these subjects (especially home economics, whatever that is) degenerating into the theoretical elaboration so common today and illustrated by the fact that (in the present writer's State at least) there is for the matric a theoretical, but no practical, paper in cookery.

### WHY EXAMINATIONS?

Surely it would be far better to abandon home science as an examination subject but provide proper equipment for its treatment in a creative and practical way for all girls who are interested in it. The type of girls who does care for it is usually just the type who dreads examinations, so why turn it into an academic subject? Incidentally this would also avoid the farce to be seen today of boys taking home science for matric because it is supposed to be an easy subject.

It is the same with Fine Arts, which is also one of the alternative groups for specialised study. This group consists of the history of art drawing and designing, painting, modelling, music, and dancing. Whoever takes one of these must take three. Now why should someone who wants to take dancing necessarily also be good at two of

the other arts? And surely these too are not subjects that should be examined; yet they are ones that girls often excel in and should be given opportunities for.

It is true that the Commission realises the evils of the examination system, and to mitigate them they recommend that school records should be taken into account in assessing the results of the final examination. In fact they even suggest that it is not necessary that every pupil should take the public examination at all. Could not this idea be developed, especially with reference to girls who do not want to go on to college; so that they could finish school without taking the examination but with a recognised certificate embodying records of achievement? This would not in any way prejudice others of an academic bent who do want to go on to higher education: on the contrary it would give them a far better chance not to be kept back by the weaker members of the class. For the non-academic type it would lift a burden and give an opportunity for the imaginative and "dynamic" methods of teaching the Commission is so anxious to see.

All this is only to suggest that girls may have needs different from boys, and, in the coming expansion and reforms Education Departments should take account of them. Of course the cooperation of teachers and parents is essential, but this should not be difficult to obtain. Women teachers are not unimaginative or unadaptable, and as for parents it should be possible to persuade them that without the cachet of "matric" or even "failed matric" their daughters may yet be happily educated persons.

# THE PSYCHOLOGY OF CO-EDUCATION

—M. E. GIBBS

## CONDITIONS FOR SUCCESSFUL WORKING

Why co-education? Besides purely practical reasons, there are those who hold that co-education is desirable in itself. It is sometimes thought that it is "advanced" or "modern"; but educational schemes should not be adopted as fashionable people choose their clothes. Two other more solid reasons are often given in favour of co-education. One is the unnaturalness of segregating the sexes during their most formative years, an argument which becomes more forcible if the schools are residential. The other is that, in the modern world, men and women must live and work together, and it is far better that they should learn to do so while they are still at school.

In India this argument has particular force. The old social tradition of this country has kept the sexes apart; but society is changing rapidly in this respect. Young people however, are not likely to learn to adapt themselves to the new conditions in homes of the old-fashioned type, and so co-educational schools and colleges are required.

A difficulty about co-education is the instability of the typical adolescent. It is far from certain that the immediate result of sexual maturity is a conscious interest in the other sex. There seems to be a great deal to be said for not exposing boys and girls of this age to the over-stimulating effect of a first experience of co-education.

The post-adolescent period is difficult. Here more stability has been attained, and young men and women meet once more on a footing of mental equality. Those who go on to higher studies are for the most part impelled by interest, or by the desire to prepare themselves for a profession, or by both. Moreover, at this age the qualifications of specialist teachers become of overriding importance, and make co-education the rule except in professions mainly reserved to one sex, such as nursing or engineering. The chief new consideration which arises at this stage is that this is the normal age for young men and women to feel that kind of attraction to one another which finds its fulfilment in marriage.

### "ONLY PASSENGERS"

A further difficulty about co-education is that it may induce too passive an attitude in the girls. Especially if they are in a minority, and have come into a school which was originally for boys only, a tradition may easily arise of their being only passengers or ornaments, the real and highly educational work of running societies and other extra-curricular activities being left to the boys. In a girls' school

or a women's college, girls with a capacity for leadership and responsibility will get an opportunity for exercising it which may be denied them in a co-educational institution. It may be that a girl who has played a leading part in the activities of such a school or college may in later life be better fitted for active cooperation with men than one who has been a mere passenger in a co-educational institution.

For co-education to be undertaken with any chance of real success certain conditions are generally considered necessary. One is that the numbers of the sexes should not be too uneven. Another is that the staff should include members of both sexes. Co-education does not mean a handful of girls being included in a large class of boys taught by a man. It means approximately equal numbers of boys and girls being taught sometimes by a man, sometimes by a woman. Again, in a co-educational institution where the principal is a man, there ought to be a senior woman member of the staff who will work in close cooperation with him and have the chief responsibility for the girls—their behaviour, health, welfare and general interests. Nor should co-education mean that the sexes are never to do anything separately.

Now, how far are we applying these principles in what passes for co-education in India? Certain people began to desire higher education for their daughters; there was no local women's college and they were unwilling to send their girls to a residential institution. So they were admitted as students in a men's college, no special provision being made for them other than the setting apart of a common room where they could retire during free periods.

#### MISUNDERSTANDING

Unused to the society of men except members of their own families, and even then passing most of their time with the women of the family and never seeing their father's visitors; and overwhelmed by the immense majority of men and boys to whom the situation was equally unfamiliar—what could they do but go about as inconspicuously as possible? And in fact they soon found that any approach to a more friendly attitude was certain to be misunderstood on all sides, and lead to trouble and embarrassment. Participation in college societies was impossible for them under these conditions, and nobody took any particular interest in what they did outside class. This was an unpromising beginning; and there are other conditions besides which make co-education in India a particularly difficult matter. One is the age at which it usually begins. Intermediate students often enter a college at fourteen or fifteen, an age when adolescent instability is at its height. Custom and caste and communal differences make the kind of serious affair between elder students intended to lead to marriage, which occurs in the West impossible. But, under such circumstances, to throw young men and women too closely together may be playing with fire.

In spite of all these difficulties, can anything be done to make co-education worthwhile in an Indian college? Some years ago it was decided to make a serious attempt to do so. At that time there were three women students in the college concerned, but it was possible to open a women's hostel by combining with the teacher training class of the neighbouring girls' high school, which was under the same management. For a long time, the women students in the hostel who were reading in the college classes were a very small minority but the hostel provided a centre where they and the women day students could have something of a real student life, without being overwhelmed by the great masculine majority in the college. The college has always had at least one full time woman teacher on the staff besides the teacher in charge of the training class. One of these has been the warden of the hostel and it has been arranged for the training class teacher to do some teaching in the college. This gives her a prestige with the women students and a position in relation to the college as a whole which she could not have if she were confined to the work of warden.

#### SPECIAL SEATS

We have always encouraged women students to take part in the general life of the college, to be present at college functions, and to take an active part in the life of college societies. This generally meant, at least in earlier days, that a woman member of the staff must be present on all such occasions, to see that all went well, and to give some protection against the roughness and rowdiness which sometimes characterise student occasions. A difficulty often arose because the women students had to be allotted special seats on these occasions and this was sometimes resented by the men as undue favouritism, and by the women as excessive interference with their freedom. It was, in fact, difficult to create for a small minority of women students in a men's college conditions in which they could feel self-confident and at home, without making them feel spoilt favourites, which was bad for them. Ways must be found of making college discipline apply to them in all suitable forms. There was a tendency—there still is—to encourage girls by special prizes for the best women speakers in debates, or by electing women students with no special qualifications on to the executive committees of college societies merely because of their sex. Some women students—and some men—have been positively harmed by the experience of co-education. And yet, after 20 years, we are beginning to see the results of the experiment.

Healthy friendly relations and cooperation are beginning to develop. Here and there a girl gets the chance to prove herself on her merits as an official of a college society. There are still many difficulties. There are male students who resent showing the girls the

right kind of consideration. There are others—mainly in the intermediate classes—who rejoice in a rather crude and cruel type of teasing. Yet others are over-eager to find every possible opportunity of getting in touch with women students, ever ready to take advantage of every appearance of friendliness on the part of a woman, and incapable of accepting the situation with gentlemanly resignation if the girl should show that she wishes to have no more to do with him. We have not been unaware of these and other real difficulties, and we have tried to face them squarely, not merely plaster over the cracks.



## MEDICAL EDUCATION IN INDIA

—P. C. RAKSHIT

Medical practice and, consequently, the pattern of medical education should conform to the needs and environments of individual countries. But it is wrong to assert that a particular system of medicine should apply to a particular people on a geographical or ethnological basis, as there are no fundamental differences in the human physique and its life processes.

The ancient systems, still current, Ayurved and Unani, flourished in our country before the birth of Christ. Medical, surgical and obstetrical practice are recorded in their history. According to them, the conception of the living process is based on a number of principles and medicinal treatment is based on empiricism. As in other matters, Indians have retained the old systems as heritage and among the masses especially a very large number still cling to them. After Independence the Government is encouraging the revival of the systems and research in them on scientific lines.

Before reviving wide study of the old systems it is desirable to subject their principles to thorough scientific scrutiny. In the present-day schools of indigenous medicine, however, the students learn the old principles and the older concept of diseases and also about modern treatment. There are two types of teachers in such institutions. The orthodox type, versed in ancient science alone, teaches the old principles and basis of diseases and their treatment by indigenous medicines; the other, with modern scientific knowledge and no conception of older principles, suggests allopathic drugs for particular diseases. The students, with no knowledge of modern science and the pharmacological action of these drugs are in a quandry. This arrangement is bound to continue to keep the indigenous systems backward.

### REASSESSMENT

It is essential, therefore, that old theories be reassessed in the light of modern findings about the human system in health and disease and that the indigenous material be subjected to pharmacological tests, and all acceptable truths of the older systems be incorporated in the new Medicine. Such work should be entrusted to experts qualified in modern scientific medicine, and many institutes should be established for this research.

Education in the Western (allopathic) system of medicine was introduced in our country in the latter part of the 19th Century. It is time we took stock of the present position. There are now 34 medical

institutions imparting undergraduate training under 21 universities. four of them in an embryonic state.

Students admitted to the medical course are generally required to have completed the I.Sc. examination in its medical group (with physics, chemistry, including organic chemistry, and biology, theoretical as well as practical). Certain universities, however, are continuing to admit students who have passed the general I.Sc. examination.

Before proceeding, it should be said that pre-medical studies are wholly inadequate. So far the universities have failed to provide adequate courses as science faculties have never evinced interest in formulating a suitable pre-medical course. The abolition of the intermediate from the universities on the recent recommendation of the Inter-University Board would be a calamity. Unless medical institutions themselves provide pre-medical course, the mental equipment of would-be trainees for the profession is bound to be grossly inadequate.

It is, therefore, suggested that after the matriculation or school final, a two-year course in english, mathematics, history of human races, sociology, the humanities, physics, chemistry (inorganic and organic), biology and elementary statistics should be compulsory for intending medical students. The teaching of these subjects should be orientated to the needs of medicine. If history, sociology, the humanities, physics, chemistry and biology are to some extent taught in the higher secondary courses, a year may suffice for the pre-medical course. Selection for the pre-medical course should be on the merit the candidates exhibited at the preceding examination, a general knowledge test and physical examination.

Another existing condition for entrance into the medical course is the age of the candidate. At present they need to have completed 16 years and eight months for admission into the pre-clinical course. Similar restrictions on the minimum age exist in other countries: in the U.S.A. there is restriction of the upper limit at 30 years. Fixing a minimum age limit will become unnecessary with the age of 16 for the Higher Secondary examination followed by one year for a pre-medical course or at 16 for school final (matriculation) followed by two years for a pre-medical course.

#### COURSE OF TRAINING

The current course of training is of five years; two years pre-clinical mainly for anatomy and physiology and three years clinical for pharmacology, pathology, social and preventive medicine, forensic medicine, surgery medicine and their ancillary branches, midwifery, gynaecology and infant hygiene; training is given in theory and practice in the laboratory and hospital wards and out-patient departments. Post-examination (internship) training has been introduced in only one university centre up to now.

The Medical Council of India has recommended that the academic course could be shortened to four and a half years by providing one and a half years for anatomy and physiology only and three years for the clinical-period subjects. This is to be supplemented by practical training in clinical practice as internes for one year, which is much more important than half a year of didactic training. The total period of study and training before registration would be five and a half years. In the internship period, arrangements would be made for three months training in social and preventive medicine, preferably in rural areas. This is particularly important in India, where the rural area is undeveloped economically and hygienically and preventible diseases are rampant in epidemic and endemic forms.

The medical course has been divided into several stages for the convenience of periodic tests of progress. There can be no real compartmentalisation of the professional course; it is a continuous phase in gaining total knowledge. This truth should be inculcated in the minds of students from the very beginning as they are usually prone to consider their studies in several watertight compartments and the tests as hurdles. They put away their books and notes as they get over their tests, and list them on the notice boards as for sale soon after crossing each hurdle. This is the objective oblivion; the subjective oblivion from memory of fundamental knowledge is a greater calamity. Very often one finds in the higher classes that the teacher of the clinical group has to re-teach preliminary subjects finally to get discouraged that he cannot reach the fringe of his own subject within the specified time. Very often a teacher wishes that his pupils should begin again in the lower sections. Such a situation will always continue with a few students but the average should be above it.

To correct this defect, teaching should be directed from the beginning towards imparting a composite knowledge of the human anatomy, human physiology, the responses of the human systems to all kinds of environments, reactions to physical chemical agencies, disturbances of functions, hormonal factors, injuries, infections that bring about changes and diseased conditions, etc., personal attention should be paid by the teacher to each individual student; frequent demonstrations and seminars should be arranged to develop the faculties of reasoning and observation; the practical technique of treatment, medical, operative, occupational, etc. and their ensuing results, should be demonstrated and students helped in carrying them out and developing their own skill.

#### FINANCES

Before undertaking to start a medical college, whose establishment and maintenance is a costly affair, finances must be assured. Future expansion of buildings to accommodate the newer and advanced departments being necessitated by rapid progress must also be provided for.

Residential accommodation for students and staff and recreational facilities are essential. Equally important is equipment; laboratory and training equipment should be provided on the basis of admissions to the college. The trend of increasing admissions so as to secure a bigger revenue from fees, without providing commensurate additional equipment, should be discouraged. An adequate number of teaching beds in the hospital on the basis of at least five beds per student in the clinical departments, especially in the general medical and general surgical departments, is an absolute necessity for proper training.

A major requirement is teachers. Full-time, non-practising and adequately paid teachers must be provided. Since much depends on personal attention, teachers in adequate numbers, not less than one for every ten students, should be engaged. They must be properly qualified and experienced in teaching. With deference to the so-called honorary teachers (whose employment has undoubtedly helped the economic survival of institutions) it must be said that such teaching and training leaves much to be desired. A teacher has to devote considerable time not only to teaching, demonstrating and correcting the approach of students to various problems, but also to self-training. This is not possible under an honorary system. Moreover, research work cannot be expected of them. It is high time for a full-time non-practising, all-India teaching cadre to be created by the Central Government.

During the five-year course, examinations are held at the end of the second year, after three and a half years and at the end of the fifth year. The syllabus of study and training courses in all universities have more or less been standardised to a minimum uniform level on the recommendation of the Medical Council. Of late, the importance of post-examination (internship) training, notable in progressive countries, has been (since 1950), provided in only one university in our country. The General Medical Council of the U.K. introduced internship training in 1953. Recommendations for internship training have since been made, it is understood, by the Medical Council of India and the universities are likely to introduce it in the near future.

#### EXAMINATION RESULTS

It is perplexing that examination results in medicine vary so much at different centres—from 40% to 80% passes in the first examination to 25% to 90% in the final. Professional courses are costly and time-consuming; the products should be released with the least possible time, but not at the sacrifice of standards. The percentage of passes is however no index of standards. That the standard is low and getting lower is admitted by all educationists and university authorities. The reasons are many.

There is no control over the number of admissions. Whether it is a Government or a public institution, admission is increased from year to year without the necessary facilities. The Bhore Committee's recommendation has been wrongly interpreted as it appears to have meant that the production of one-class doctors is to be achieved by getting the licentiates through a condensed degree course, whereas the Committee's idea was to arrange one uniformly high course under the university and as a prerequisite to stop licentiate type education by closing the medical schools and upgrading some of them to colleges and also by opening up new colleges. Another factor is the attempt to increase the speed of outturn to bring the quota of available medical men for the country's needs to the ratio 1:2,000 of population.

## TRAINING FOR COOPERATION

—J. M. GIBSON

At a meeting called by the Central Board of Secondary Education the problem of how to improve examinations was under discussion. It is often discussed, and often one hears ideas similar to those of one of the speakers who said: "During British rule in India the opportunities for secondary and higher education were almost limited to the wealthier classes. As these classes traditionally shunned all kinds of physical and productive work the curriculum was loaded with the dead weight of theoretical subject matter and book-learning. This curriculum was naturally conducive to the establishment of the present system of examinations, and passing of an examination became the only criterion of education." This may be part of the truth, but it is certainly not all the truth.

It may be comforting to call everything wrong a "legacy of the British"—indeed some years ago this was so common an excuse by lesser politicians for their shortcomings that I remember an occasion as I drove at speed over a fearful pothole in a main road when I and my companion, also I confess an Englishman, explained together "A legacy of the British" as we resettled ourselves in our seats. But, as far as I know, examinations in all countries and throughout history until quite, recent years have largely dealt with "theoretical subject matter and book-learning", and traditional Indian learning certainly makes great demands on the memory. Nor is it true of the wealthier classes in Britain to say that they shun all kinds of physical and productive work. In the residential schools there, and indeed in all schools, more and more importance has been attached during the last 50 years or so to this type of work, and this is also true, though for a shorter period, of the residential or so called public schools in India. But I do agree with the speaker I have quoted when he went on to say, "We need schools based on the principles of productive and creative work and cooperative endeavour."

### NEGLECTED PUPILS

At present, in our Secondary schools, we tend to cater exclusively for those going on to higher education, and to neglect the large numbers of those who should start to earn their living, or at least to learn a trade or skill, at the end of their schooling. As a result too many pupils are forced into the universities where lack of real prospects in life for so many of them has led to unrest and ill discipline, while from the majority of schools, those who do not go to the universities are ill fitted for the sort of job in life they ought to take up. In Britain most of the young people who go into commerce and industry

go direct from school as apprentices and learn their job from the bottom. In India, at present, most of the big firms demand graduates, though often a boy will leave a good school in trim to work hard, only to pick up habits of inefficiency and idleness at a college where, owing to great numbers, lack of tutorial supervision, and so on, he fails to continue the training he has had at school. This, one hopes, is a passing phase from which we will emerge as the economy of the country expands, as more and more graduates can be absorbed, and as standards in schools and universities improve. There will always be need for those who are masters of "theoretical subject matter and book-learning", and the more people who can benefit from a university education that broadens their minds the better.

Meanwhile I think it is certainly true that we need more schools based on principles of productive and creative work and cooperative endeavour, or at least that more of this should be combined with book-learning. I also know that we have such schools, though not enough of them. I teach in one myself, and though the work in our classrooms is largely governed by examination syllabuses, the whole point of such a residential school is that the pupils learn, by living together, to cooperate, and the good school will also do all that it can, in its art school, workshops, gardens, farm and so on to foster productive and creative work.

#### AWAKENING INTEREST

Provided that the examination syllabus is a good one, and the whole point of public examinations is that they should guide teaching along the right lines, then there is no harm in its influence over our class work. Doubtless there is need to improve syllabuses and examinations, but that is not the subject of this article, and all I would suggest is that it is up to teachers not to allow themselves to be restricted to cramming. The joy of teaching comes from the waking of interest and when understanding dawns where before there was none. You remember the incident when the hair on Drona's body stood on end with delight? We teachers should allow ourselves more of these moments.

The problem I have been pondering since the meeting I have mentioned is how to teach cooperative endeavour and how to assess it. We all know that there are some students who will never do well at academic examinations, but who, nevertheless, have qualities that these examinations do not attempt to assess and that are of as great or greater value than book-learning, and for which they usually get no credit—such qualities as the old Roman "virtues"—leadership, common sense, powers of cooperation, and so on. When a school or university can build up a reputation for correct and fair assessment of its pupils, it may be possible for it to give the merited weight to

these qualities, but probably even then only within a small circle of those who know it well. "Chits" and testimonials are so easy to come by that they are often hardly considered.

It was these qualities that were in great demand during the last war when thousands of new officers were needed, and there was no time to test and train them in the academies that serve this purpose in peace time. I was fortunate enough, towards the end of the war, to serve for a time as an instructor at the United Services Pre-Cadet College started at Nowgong under the influence of General Auchinleck, and which was in some ways the forerunner of the present National Defence Academy. To this were sent all sorts of young men, from boys just out of school to men who had already seen service in the ranks, who were thought likely to make officers given the right training and experience.

#### MAIN ACTIVITIES

Our job was, if possible, to develop the required qualities. In attempting to do this we were helped by the experience of similar training establishments that had been started in other countries. There was some academic instruction, but the chief activities were those which developed initiative, cooperation and leadership, and the ability to undergo the physical strain involved in cross-country exercises, all of which, on completion, gave those who had taken part a justified sense of having achieved something. After it was all over I was impressed by the number of old cadets who wrote to me—not only those who went on to further military training, but also others who went back to civil life—and said what a lot they thought they had got out of their time there.

Much of this type of training comes by the way in a residential school at camps, on expeditions and so on, but in India, where there are so few boarding schools, it was a new experience for many and it was much more intensified than in any school. The whole life was training in cooperation, but in addition we devised a number of group activities to help to teach and develop this, such as group obstacle courses, roped rock climbing, and what we called "snap situation" in which small groups of cadets had as quickly as possible to carry out some unexpected tasks such as "Change round all the wheels on that car" or "Fetch that buffalo". I have no doubt that in ways like this cooperation can be taught. It can also be tested, and the Services and certain large firms have been doing so for some years through their Selection Boards with their group tests.

In Britain the value of such training, in addition to what is provided in the schools, has been widely recognised, and the Outward Bound Schools were started in 1941 specially to give it, by what they called "character training through adventure". At these schools the course



lasts 26 days and is for boys or girls from 15½ to 19½ years of age. They come from all walks in life, factory hands and Eton mixing together. Many firms, recognising the value of the training, send their employees and pay their expenses. The aim is to give them "an opportunity of training through the sea, mountains, and other natural elements as a means of developing their own capacity to face hazards, difficulties, hardships and emergencies of all kinds. They present to each a set of conditions necessary to give him, possibly for the first time, the opportunity to discover himself. These conditions demand self-discipline, team-work, adventure, some hardship and risk."

In India there is already a movement in the same direction. Much of the training at the N.D.A. has for some years been on these lines; the Indian Institute of Mountaineering at Darjeeling offers similar experience; the N.C.C. and other youth movements incorporate many of the same ideas. It is vital to have the right sort of instructors—people of imagination and sympathy. It is also vital, if India wants more than just those with theoretical and book-learning in its public services and businesses, that those responsible for selection should also look for evidence of other qualities.



## A MOUNTAINEERING COURSE

—N. D. JAYAL

Very often it has been said of Indian University education, that it is too academic, and that students have no outside interests and no ambition except to get a job.

I feel the Himalayan Mountaineering Institute in Darjeeling can assist in filling in a crevasse in our educational system. A lot has been written about mountaineers and mountaineering but nothing, as far as I know, about how it can contribute towards the enhancement of our education. In my opinion, the most glaring flaws—and it is not typical of Indians only—in the make-up of our youth are (a) too much of a competitive attitude towards others rather than an effort to compete with and improve on their own performances and (b) an accent on trivial and petty things in day-to-day life.

What we do here is to give the students a week of thorough theoretical training in all subjects connected with mountains and mountaineering. This includes high altitude physiology, plant and animal life, principles of geomorphology, meteorology, geology, cartography, first aid, mountaineering technique, etc. This is followed by an eight-day trek to the climbing training area, six days rock-climbing training, six days of ice and snow technique, followed by an assault on a 19,000 or 20,000 feet peak combining the three. After this an eight-day trek back by a different route is followed by three days of testing, ending up at Darjeeling. If a tour like this was all we were to achieve there would be nothing unique or worthwhile about this institute. Most of what I have described could be arranged by a tourist organisation. I believe the answer lies in laying the correct emphasis and creating an atmosphere conducive to men and mountains meeting under conditions from which men come away greatly benefited.

### FIRST PHASE

In the first phase of their training at Darjeeling we emphasise the scientific aspect. By teaching all scientific subjects that have anything to do with mountains and showing their relation to one another, we will eventually be able to shape a "Himalayan mountain-craft". We know that plant life in the mountains is related to the geology of the area. Animal and bird life are dependent upon climatology and the forests of the Himalayas. These and the rivers and glaciers dictate the lives, habits and customs of the people living there. So we see that all these are correlated. Individually, all these subjects have been well studied, research on them carried out and various scientific bodies in India deal with one or more of them. But we wish to blend as much of them as pertains to the Himalayas with technical training

in mountaineering and living in the mountains. By assuring this background we combine strong purpose with pure love for the mountains and climbing. We also expect assistance from the Council of Industrial and Scientific Research in facilities for scientific research.

When the new buildings come up one of our objects is to have a museum. Its sections will be filled with exhibits showing how people live in the long Himalayan chain, their agricultural implements, their dress, their social customs, their crops, their religious customs, their art and handicrafts. These will give students a better understanding of the area in which they travel.

The second phase of the training is the time out of Darjeeling. During this period, apart from technical training in mountaineering and climbing, we emphasise training in self-reliance, leadership and discipline.

### STUDENTS' PARTICIPATION

During the study at Darjeeling all planning and purchase of food-stuffs, making up of loads etc. is done by the students under supervision and advice. Some of the subjects are taught by the students themselves and some by a form of discussion—a seminar, for which books and pamphlets are given to students to study beforehand. On the trek, the issue of rations is supervised by a team composed of two students and one member of the staff. On the mountain, after they have attained some proficiency, students are given opportunities to lead on the rope. On advanced courses this will be more frequent.

I am certain that students who have been with us for about six weeks will go away better and maturer citizens than when they came. I do think that to counter indiscipline it is more lasting and effective to replace the desire to "make a mark" or "feel important", the root cause of lack of discipline, by a substitute—by sublimation, rather than through regulation and regimentation. This substitute can be the self-discipline imposed during mountaineering treks and expeditions, of living in a restricted society under hardship, of having to be careful and exercise concentration because somebody else's safety or comfort depends upon them when it would be much less irksome to be relaxed and careless.

We do not intend to produce mere athelets and gymnasts, but to help students become integrated and balanced in outlook. One of the greatest advantages mountaineering has over other sport is that there is no danger of playing to the gallery—no question of exhibitionism. Most important and effective will be the impact, conscious or sub-conscious, on the students of the symbolic aspect of mountaineering, the very fact of rising higher and higher, surmounting obstacles. On a mountain a mountaineer is always the gainer even if he does not reach the summit. He has at least gained in the qualities which danger and nature in the raw sharpen, and an understanding of the character

of sacrifice, physical exertion almost beyond human endurance and above all the comradeship of one's fellowmen.

I do not maintain that it is mountaineering alone that will accomplish this. It can be sailing the oceans, exploring in forests and polar regions and similar adventures where the difficulties that have to be faced are undoubtedly bigger and stronger than man. In these endeavours man can have "victory without pride" and "defeat without despair" unaccompanied by the psychological consequences normally attendant upon victory and defeat when competing with fellow human beings.

The Himalayas, by humbling those that come to them with their vastness and power, satisfying them with their grandeur and beauty, trying their manhood by glaciers and peaks challenging their spirit with their inviolate secrets forge men who when they come back to everyday life will do so with a new perspective. Through their experiences, it is hoped, they will ignore the petty and unimportant things and concentrate on things that really matter.

Mountains have inspired and raised to great emotional heights men of science, thought and letters. I feel that students of the Mountaineering Institute can also be similarly stimulated to some degree if they are sensitive and endowed with idealism, which fortunately most Indians are. I think it will be quite a creditable achievement if even 25% of our students are so animated and exercised in their character and leadership that they return to the mountains on their own or with their companions, with an attitude of mind in which they feel "physically small and spiritually great".

## THE ENGLISH WE TEACH

—ARTHUR OSBORNE

Periodically articles are written and speeches made about the declining standard of English in Indian Schools. It is a very real thing. And the general public (which means the parents of our students) are perhaps not aware that a new and steep downward step is planned in West Bengal from next January.

Hitherto the English in the School Final Examination (which serves as Calcutta University Matriculation) has consisted of two three-hour papers and one two-hour. From 1959 onwards (that means for the students who enter Class IX in January 1957) it is to consist of one three-hour paper and one two-hour. Headmasters of schools are bound by the demands of this examination. They must strive to get the best possible results in it and therefore they have to gear their curriculum to its syllabus. This means that they will feel obliged to reduce the number of lessons allotted to English throughout the school with the result that the level of attainment will fall once more.

It may be objected that under the new syllabus an additional three-hour paper in English can also be offered, but this does really affect the issue or mitigate the decline to be expected. Under the present system all students have to take the full three papers and therefore the teaching throughout the school must be sufficient to bring them up to this level; whereas with the new syllabus the school as a whole will have less English to do and will aim at a lower standard. Only those few who decide to take additional English as an elective subject will need to come up to the present standard, or even a little higher, and it is safe to predict that headmasters will solve this problem by cutting the English lessons in all classes of the school and simply giving two extra lessons a week in Classes IX and X to those few who take additional English. Those schools which wish to keep up their standard of English teaching will be faced with a dilemma; good English will represent an ideal for them; examination results will represent, so to speak, their bread and butter. In these days bread and butter wins.

### UTILITY ENGLISH

It is to be hoped, at any rate, that the projected decline in the quantity of English taught will be accompanied by an improvement in quality. This can be done if the Board of Secondary Education will allow schools to concentrate on what might be called "utility English". This has hitherto been difficult owing to the syllabus prescribed by the Board for the School Final Examination.

By "utility English" I mean the English required to speak intelligibly and fluently, to follow a university lecture and to read a modern book or newspaper. I hold that no student should be required to learn literary or archaic expressions until he has this practical grounding.

in English as it is spoken and written today. This is a most important point because English is a language with a vast store of words and expressions that are outdated or literary and are not used in conversation or to take an example of practical English, in a newspaper article. One of the complaints frequently made against our present teaching of English is that students do not distinguish between these and utility English, that they use quaint, old-fashioned, unnatural expressions instead of the ordinary spoken English of today. But is this the fault of the student, the teacher or the curriculum? A boy says "We had a blithe party yesterday", and when you look puzzled he justifies it by a reference to the cuckoo as Wordsworth's "Blithe New-Comer".

### TEACHERS' RESPONSIBILITY

It may be said in reply that it is part of a teacher's responsibility to explain to the students which words and phrases are in current use and which are not. But is it fair on boys who have only a very limited knowledge of a language (as is true of most of those who pass into Class IX) to burden them with a mass of recognition words, that is to say of words which they must recognise but never use? I hold that it is not. To say to a schoolboy struggling to master a foreign language: "They are fain to stay means 'they wish to stay', but you must never use it" seems to me unfair, and yet a teacher explaining "The Train" by Mary Coleridge in the present Matriculation syllabus has to say just that.

Moreover, not all English teachers are capable of making the necessary distinction. It must be remembered that the enormous majority of them are men who have themselves been brought up on the same syllabus and have never been to England and seldom, if ever, spoken with English people. They are to be forgiven, therefore, if they are themselves to some extent vague as to which are utility words and which recognition words.

In a language so wealthy as English, it may be unavoidable that some recognition words should be taught but I repeat once more, they should be kept to a minimum until the student has a correct and fluent grasp of utility English. This is a responsibility that devolves on the syllabus framers, that is on those who prescribe the texts which the schools have to teach. Once the texts have been prescribed the teachers themselves are helpless in the matter.

### THE QUESTION OF POETRY

How does this affect the question of poetry? I agree with Mr. Bruton, who gave a series of talks on the teaching of English at the British Council in Calcutta last year, in holding that at the High school stage poetry should not be taught. This may sound a heresy to those who cling to the ideal of familiarising the student with the finest in British culture, but in actual fact boys with the present High

school knowledge of English are not capable of appreciating the subtleties of English poetry. The very fact that they are given a course of some 20 poems to study over a two-year period proves this. That kind of slow, painful exposition, with an ever vigilant eye for spotting examination questions and likely contexts, is far more likely to give students a horror than a love of poetry. Even in English schools, the exposition of texts has done more to kill than to foster appreciation.

Moreover, whatever may have been true in Macaulay's day, it does not suit present day conditions to train students to read poetry. Very few people sit at home and read poetry after finishing their education today, and those who want to do so will be better equipped if they are given a good grounding in the language itself than if they are dragged through the exposition of texts which are still beyond them. The education we give should be a training for life, and the need of the vast majority of our matriculates is to be able to converse freely in English, to understand lectures delivered in English and to read English newspapers and modern books, and it is for that that we should train them. Those who take a course in English language and literature at the University will reach a stage where they can appreciate the subtleties of English poetry and will be able to read and enjoy in an evening what plagued them for months when they were drilled in it at school.

While this detailed study of texts which are beyond the student's grasp does not lead to real appreciation, it also does not help his mastery of the language, or at any rate not as much as is a growing language and it could be done with modern reading and conversation. Aiming at two purposes, it misses both. The spirit of the poem is not accessible, whereas its diction actually impedes the student's learning of the utility English that he requires, choking his vocabulary with the stilted, unnatural phrases already referred to and wasting the time when he could be learning in a practical way.

### A GROWING LANGUAGE

Nor is it only the poetry texts prescribed which are unsuitable for our schoolboys. A large part of the prose texts are also changing so rapidly that the 19th Century classics are no longer in the idiom of today. "Treasure Island" or "The Hound of the Baskervilles" are, therefore, less suited either for detailed texts or rapid readers than, for instance, Jim Corbett's "Man-Eaters of Kumaon". Almost all the prose texts prescribed for matriculation students at present are from 19th Century writers. I do not say that these should be ignored, but that the utility language, English as it is spoken and written today, should come first. Older literature, even 19th Century literature, which is already in a strange idiom, should be reserved for the university stage. Let our boys, who are still struggling with the form and

vocabulary of the language, read texts that will help them in the task, not distract or confuse them with recognition usages against which they have to be warned.

To attempt, as is done at present, to give them a sample of texts ranging from Shakespeare and the Authorized Version down to modern times may be an excellent ideal for a later stage, but it is unpractical at their stage. The extent to which the selection of texts is divorced from practical considerations is to be seen in the 1954 selection intended for matriculation candidates of 1956. This actually contains a Scottish dialect poem by Burns, full of words such as "birkie", "cool" and "mauna", which are not even in an English dictionary, unless it be one that includes regional dialects. Whether or not in response to a letter of protest that the present writer addressed to the Board, this poem was later removed from the list, but the very fact of its initial inclusion testifies to the idealistic mentality behind the choice.

#### FALLING STANDARDS

More than ever is it necessary to adhere to utility English in the High school stage now that the authorities plan a new decline in standards. What we have to remember is that English is the medium through which the young men who leave school are going to contact international trade, science, politics and ideas generally, through books, lectures, business contacts, etc. It is for this that we must equip them. But those who teach are bound by those who frame the syllabus, and there can only be a switch over from old-fashioned elaboration of texts to utility English if the signal comes from above.



## ENGLISH FOR SCIENCE STUDENTS

—CASSIODORUS

I must confess that I am very tired of listening to speeches and reading articles about the future of English in India, partly because I have heard and seen the same arguments put forward so frequently that I can normally foresee what each writer's or speaker's line of reasoning is going to be as soon as I learn that he is going to deal with this particular issue.

The arguments in favour of the retention of English have been exhaustively examined and summarised in Professor A. R. Wadia's book "The Future of English in India" (Asia Publishing House, Bombay). The case for English is most convincingly put by Professor Wadia, but he, in common with most other writers and speakers on the subject, ignores completely the absolutely vital issue of the means to be employed if English of some sort is to be retained in India. Most people with whom I discuss this problem assure me fervently that "India must have English", but none of them has the faintest ideas of how to set about retaining some English in India. If one thing is certain, it is that English will not remain in the sub-continent as the result of an act of faith on the part of well-wishers but because it is well and efficiently taught by competent teachers working to a suitable syllabus and using adequate textbooks.

Even if these ideal conditions can be created, it is surely obvious that the standard of knowledge of English among school children and university students will inevitably decline. You cannot suddenly change the status of a language from that of a medium of instruction to that of a second language and not expect a very drastic fall in the standard of achievement. English is taught as a school subject for varying periods in the different States—four years in Bombay (from 1955), five in the Punjab and U.P., six in Madras—and for a different number of periods weekly, and it is surely unreasonable in this context to expect anything remotely resembling the standards of the past. But these changed circumstances demand a radical change in attitude on the part of university and other authorities, who must learn to cut their coat according to their cloth.

### THE OBJECTIVE

The most essential need of the present situation is for a definition of the objectives of English teaching in India. In the past the objective was fairly clear, for all English teaching had as its prime motive the preparation of students for an ultimate degree in English Literature, since this was a means of entry to Government service. Because English, was for many a medium of instruction it was possible to some extent the problem of teaching the language itself and concentrate on literary values, but in the present context the situation

is radically different, and the need is to teach the language and to postpone to a point beyond the High school syllabus the teaching of literature.

This change in accent will also necessarily be imposed by the fact that in the four or five years during which he learns English, an Indian student cannot hope to acquire a vocabulary of more than 2,500 to 3,000 words—you can't appreciate the beauties of Shakespeare on that. Students in India will be in the same position as those in other countries where English is taught as a foreign language; they will be able, if it is so wished, to cope with simple material specially written within a limited range of structures and vocabulary; or as an English student learning French, is able, at the end of his High School course, to read the fables of La Fontaine.

Nobody would, I think, disagree with the point of view that the Indian student of today needs to learn English as a tool, to use it as a means of acquiring knowledge in the particular subject that interests him and in which he hopes to specialise. Consequently all English teaching should be geared to this particular necessity, and syllabuses and textbooks be prepared for attaining this limited objective. The problem is particularly acute in the case of those students who intend to specialise in the sciences, and in my experience is not being tackled anywhere in India with a full realisation of the issues involved.

#### TEACHING OF SCIENCE

We must presumably accept as inevitable the replacement of English at the University level as the medium of instruction by Hindi or one of the various regional languages. To my mind it is useless to argue about the desirability of this, since nothing can arrest the process except a return to the *status quo*, which is inconceivable. There are those who maintain that it is impossible to teach the sciences through Indian languages—the answer surely is that the impossible will have to be done unless a major revolution in University organisation is thought to be feasible, for even more impossible would be the task of teaching science on a vocabulary of even 4,000 words. Nevertheless, a knowledge of English and the ability to read English books would be an undeniable asset to a science student, if means can be found to impart this ability both during the High school years and subsequently.

That Universities in India are aware of the problem and would welcome a solution is indicated by the fact that some of them have already adopted measures designed to meet the situation. In one University that I have visited, all first year students attend a compulsory English course, regardless of the subject in which they intend to specialise. In another, English tutorials are obligatory. But, most lamentably, in both cases, the emphasis is upon literary values, which means that students who intend to specialise in Chemistry are obliged to read and “appreciate”, for example, essays by Lamb and Chesterton

and poetry by W. H. Auden! This inevitably produces a feeling of frustration and boredom, for the student lacks the necessary equipment to cope with literary values of this kind, in which he is, in any case, not even remotely interested.

The shift in emphasis in English teaching has obviously caught the Universities unprepared, so that they are now trying to deal with a changed situation without reforming their methods. It is easy to appreciate why a college lecturer should concern himself only with literary values, for that is after all what he has been trained to do, and he cannot normally bring himself to consider purely linguistic problems, or to limit himself in teaching to using a limited range of vocabulary and structures. Fortunately, most of the lecturers I have met are aware of their own shortcomings in this direction and are only too anxious to have remedies suggested.

Such remedies must, I insist, take into account both the possibilities and the needs of the students we have in mind. Professor Gatenby in his recent articles and numerous other writers on the subject have stated categorically that in a High school English course it is possible to equip a student with a basic vocabulary of 2,500 words and a knowledge of the most fundamental structures of the language. These then are the possibilities and we have already stated that the objective should be to teach a student enough English to be able to read books in his subject with understanding.

#### EXPANDING VOCABULARY

It surely follows that all effort should be directed at the rapid expansion of vocabulary in the first year of University studies, and also that this vocabulary should be technical and not literary in character. Since a reading ability is what is being aimed at, it follows also that the vocabulary will be acquired primarily for recognition purposes, which means that the total number of words may be greater than if active use is the objective. It would not be feasible to provide separate courses in English for students of each of the different sciences, and therefore it would be necessary to draw up a basic scientific vocabulary in English which would embrace the normal range of science subjects. Books on scientific topics calculated to interest and be useful to the students would then have to be written for use in whatever course Universities offer. There would also be a need to train special teachers in the use of such material, who would in their teaching place far more emphasis on comprehension than on appreciation.

Naturally, in the type of course I have in mind, attention will be paid to other aspects of learning English. For example, students will be expected to do a good deal of precis writing, since this form of exercise is a valuable means of testing comprehension and training

students in succinct expression. Another most useful form of exercise is the lecture expliquee so favoured by French educationists, by means of which even literary passages may be used for linguistic purposes. Some attention will obviously need to be paid to English grammar, but it should be treated functionally, with emphasis placed upon usefulness and not upon the archaic peculiarities with which so many books on English are filled.

Above all it is extremely urgent that there should be the closest possible collaboration between school and University authorities in working out syllabuses and texts, examinations and methods. At present the Universities complain that students reaching them are insufficiently prepared, the schools complain that the type of examinations set by S. L. C. Boards hampers their teaching and so on. If these various interested bodies could meet and decide what the objective at the different levels should be and what the possibilities are, then an integrated policy for English teaching might be achieved which would stand some chance of being successfully implemented.

## ENGLISH AS A SECOND LANGUAGE

—E. V. GATENBY

*(Professor E. V. Gatenby is an international authority on the teaching of English as a second language. He is now on a study tour of India, Burma and Ceylon. Professor Gatenby was until recently Professor of English in Ankara University, and has developed methods which have been successfully applied in Japan, Yugoslavia and Turkey as well as in several countries in South America. The following article is the first of four which Professor Gatenby has written for the Field of Education series.)*

The language position in India today is probably unique in linguistic history. English formerly the official language, and freely used by the educated classes, has now been relegated to second-language rank, like French in England or Spanish in America.

Instead of being the medium of instruction for all subjects from the primary stage onwards, it is to be studied from four to six years in the Secondary schools but with the possibility that it may continue for a time as the medium for lecturing in universities. Whereas the aim in the past was the full command of the language that an Englishman has, now it is university entrance level only, as with second language all over the world. And to complicate matters, another language, Hindi, must be learnt by every child in addition to his mother tongue, for internal communication in India. It may be assumed that the final level aimed at for Hindi is higher than that intended for English.

All sentiment apart, the dispassionate observer will agree with the reasonableness of the official attitude. Every child has the right to be educated in his mother tongue and to develop his knowledge and the use of it so that it may serve as his true instrument of thought. Again, under India's polyglot conditions, an inter-State language is indispensable. And equally indispensable is a working knowledge of the language best fitted to keep India in touch intellectually, culturally, economically and politically, with the rest of the world.

### ROLE OF ENGLISH

English thus remains part of fundamental education for the whole of the Secondary school population that is, those boys and girls who are being given the opportunity to rise above a common level according to their aptitude and ability. No other second language would be nearly so satisfactory. With the tradition it has behind it, and machinery already in existence for its propagation—including first-rate daily newspapers and other periodicals—English would be a natural choice. The fact that English is already used as a first or second language by at least half the literate population of the world (Unesco figures) clinches the matter.

The education problem now is, as with second language in other countries, how to achieve success in bringing Secondary school pupils to University entrance level in the few years allowed. What is this level? How much lower is it than the "first-language" standards now being abandoned? In brief, the facts are as follows, whatever the second language may be in any country of the world.

1. The student will gain a knowledge of from 2,000 to 2,500 essential root words with which he will be able to express all ordinary ideas and understand what is said to him in normal everyday speech.
2. For the use of these words he will be made familiar with all modern English structure apart from slang and the specialities of the stylists.
3. Thus equipped he will be able to travel in countries where English is used as the mother tongue.
4. He will be able to understand lectures in English on any subject in the university provided the lectures during the first year will explain technical terms as they arise and avoid an oratorical style.
5. Having command of English structure, the student will be able to concentrate on the increase of his active and passive vocabulary by intensive reading. He will need no further teaching of the language. He will be able to extend his knowledge as he wishes by the use of grammars, dictionaries and other reference books.

That this is no idle claim is evidenced by students of various foreign languages in different countries. Where suitable classroom conditions are provided, and competent teachers are in charge, five or six periods a week for about five years is sufficient for the desired result to be achieved. The average intake of new root words is from 400 to 500 a year rather less than two new words a day—not a formidable task.

We see then, that the difference between second-language and first-language knowledge is in the main a matter of vocabulary, and as the vocabulary can be increased at will it is only a question of time before the student raises himself to first-language level. There is certainly considerable delay in becoming fully proficient, but a late start and slower progress do not deprive the student of reaching the bilingual goal eventually, possibly at the end of his University course. We may assume that every student will wish ultimately to become equilingual in his mother tongue and English, but for practical purposes a high enough second-language level can be reached in the Secondary school period.

What do complaints about the deterioration in the knowledge and use of English amount to? One cannot have it both ways. If English is the second language, it cannot be the first—the mother tongue and Hindi must step into the places assigned to them: the former will be the language of the home, the city, the public platform, and the newspapers in particular areas, and the latter will be the medium of communi-

cation for Indians of different States. The fact that less English is used should not mean that it is poorer English, except to the extent that the vocabulary is limited. English is no longer intended for inter-communication in India except in the universities and elsewhere, temporarily, until the mother tongue and Hindi can replace it.

#### CAUSES FOR ALARM

There is, nevertheless, real cause for alarm if the English in the Secondary schools is unsatisfactory if students are coming forward for matriculation inadequately equipped. At the moment it seems that there are grounds for criticism here but not pessimism. It may be true that second languages are badly taught all over the world from England to Japan, and that there is more failure in this subject than in any other.

The fact remains that in all countries certain schools achieve success, that they do what they set out to do and bring their pupils to the required level in the given time. The causes of failure are known, the conditions that bring success are known. There is no guesswork about it. Research during the last 30 years has discovered the sure and straight road to success in foreign-language teaching.

Here and there in India the basic principles are being applied with extremely good results. It is not a matter of aiming at "limited objectives" such as "comprehension only", or introducing rigid orders of structures, or multiplying visual aids, or laying down arbitrary rules for textbooks writers, but of adopting everywhere the methods and conditions leading to success which are at present, in spite of their existence in India, ignored or unrecognised. What these conditions are will be discussed in a later article.

## THE NATURAL PROCESS OF LANGUAGE LEARNING—I

—E. V. GATENBY

Successful teaching of second languages is based on the natural process of language absorption by which every normal child learns to speak its mother tongue.

There is no such thing as a difficult language to a child: Russian, Chinese, Basque and Welsh are “picked up” as quickly and easily as Italian, Japanese and Tamil, which are considered relatively easy languages. What we call the Direct Method of second-language teaching to children is the closest possible adaptation of the natural process to classroom conditions.

There can be no argument against the natural process as such. It is God’s method, and infallible. We see it at work all around us in every part of world. Is it not common sense to follow a natural law rather than an artificial theory?

One argument, however, against the introduction of the natural process into the classroom does deserve to be answered. It is this; an infant gaining a knowledge of its mother tongue needs language. Its mind is a *tabula rasa*. It has no means of expression other than the speech it is absorbing. Once it has acquired hearing and speaking skill, the natural process automatically comes to an end. A child in school, already actually thinking with an instrument of thought which satisfies all requirements, does not need a second language and is therefore incapable of absorbing one by a natural process. Artificial methods must therefore be applied, and the second language must be approached through the medium of the first. It is a sound educational principle to proceed from the known to the unknown.

### BILINGUAL CHILD

There is one short and sharp answer to this apparently sound piece of reasoning: the bilingual child. Nature—and children—are not concerned with ‘a’ language, but language. Place any child in an environment or situations where its mother tongue is not used, and it will rapidly acquire command of the new sounds associated with the new surroundings. Without going into the details of the process by which a child becomes bi- or even tri-lingual, we may absorb more than one language at once or it may begin to absorb a second language years after the natural process by which it acquired its first is complete. An English boy of ten years going abroad to a different linguistic area will rapidly come to use the language of that area as efficiently as a child of his own age whose mother tongue it is.

If further evidence were needed, we have it in our kindergarten classes where a foreign language is used as an accompaniment to the



pleasurable activities of the children. The new language is used, not taught, and the children do not consciously learn it. In fact bilingual children often do not know that they speak two languages; they merely speak in one way in one environment and another in another—like a dialect-speaking boy in England, who may use broad Yorkshire with his playmates but standard English in his home. In kindergartens where the children attend for three hours a day, nine months are sufficient for them to be as fluent in the new language as children of their own age who are native speakers of it. In fact the second language under such conditions is acquired more rapidly than the first.

### THE AGE-PERIODS

A note on age-periods may be useful here. For language-learning we know by experience and observation that there are three main groups, though the limits of each are not sharply defined: (1) babyhood to 10+; (2) 11 to 17+; (3) 18 onwards. In the first group the children retain the faculties which make language-learning so comparatively easy: the ability to hear, identify, imitate and remember groups of human sounds. In the third group, such ability has largely disappeared through not being called into play.

Adults tend to hear confused noises rather than clearly defined sounds; their recognition of and memory for what they can see, not what they can hear, have been developed: and they have lost the power to imitate correctly. As compensation, adults have advanced in reasoning power and consequently they prefer to study a new language intellectually that is through grammar, translation and reading. And they succeed very well, it being known that a determined adult will master a new language more quickly by the use of his brains than a child will do by the use of its sense of hearing and power to imitate and remember sounds.

In the second group the boy or girl is becoming too old for the natural process of the first group but is not yet old enough for the mature reasoning process of the third. Unhappily in most countries, this second group is the one selected for learning foreign languages. As we shall see, the best results are obtained by making a start with the purely natural process and letting it merge gradually into the logical approach as the pupil becomes older. For an adult, it may well be that the intellectual process is as natural as the unconscious assimilation of a language by a child, but to treat children as adults, or adults as children, is not a wise proceeding.

With English as a second language in India, then, we are mainly concerned with a group of children who will begin to learn it at 10+ and who may continue to be taught along the lines of the natural process for at least three years. The time has come to examine this process in detail.

## PRINCIPAL FEATURES

Careful observation has revealed that there are ten principal features of the process by which a child absorbs its mother tongue or, at any age of childhood, absorbs a second language to become bilingual. They are as follows :

1. New names are learnt in close association with the object, quality, or action named, or with pictures of them. There is nothing corresponding to the conveying of meaning through use of another language.
2. The learning is through aural perception, not through visual symbols for sound.
3. Common groups of sounds rather than single sounds remain in the memory to be treated as units of speech.
4. Speech is learnt to the accompaniment of physical, emotional, and to some extent (as in story-telling) mental activity. Such learning or mental impressions are unconscious, that is, the child centres its attention on the action—its own, or that of others—not on the sounds that accompany it. The retention of the “sound effects” is effortless.
5. Constant correction goes on.
6. Natural compulsion or necessity. The child must use language to satisfy its many wants.
7. Nature supplies the maximum number of teachers and teaching equipment, and devotes the maximum amount of time to her task.
8. Constant revision goes on.
9. The whole process is full of variety and interest.
10. Speech only is taught—not reading or writing.

How these features can be adopted or adapted to suit classroom conditions will be shown in a later article.

## THE NATURAL PROCESS OF LANGUAGE LEARNING—II

—E. V. GATENBY

“First follow Nature” is as good a piece of advice for the language teacher as the poet. As Nature does show us a sure way to success it is only common sense to follow her methods. Where they are followed today in the schools of the world there is very little failure to learn a language.

But the question is how much of the natural process can be got into the classroom. As one can see from the following examination, it is only Nature’s lavishness, her over-abundance, that one cannot supply.

1. *Association of name with object, etc.*—This is comparatively easy in the classroom since we can supply pictures for all “content” words in the first year. Modern text-books do not introduce the non-picturable or non-demonstrable in the early stages. As in acquiring the mother tongue, children can learn names from pictures as readily as from concrete objects. Again, several “structural” words such as on, under, and very are demonstrable. Those that are not, like is, of, are simply used in their ordinary situations until their use becomes mechanical.

2. *Learning by sound, not sight*—There is no difficulty in copying Nature here. The teacher pronounces new words, the pupils repeat them. Opinions vary according to results in practice about the length of the period that should be reserved for purely oral work, but this seems to be relatively unimportant with children of ten. What is important is observance of the order hearing, speaking, reading, writing. Children must say what they can hear before they read the written symbols, but as soon as English sounds have been mastered and so long as the teacher keeps the more fantastic English spellings in the background, there is no reason why the pupils should not see new words in their textbooks before they hear them pronounced. In the kindergarten, however, there should be no reading and writing.

3. *Learning common groups of sounds*—Although it may be desirable for the teacher to enunciate each new word clearly, and to see that it is correctly imitated, there need be no delay in using it in its ordinary collocations, e.g., Where is the duster? Is this a duster? Put the duster on the table. Is this the duster or a piece of chalk? etc.

4. *Learning through activity and situation*—This is where the first restriction of the natural process has to be admitted. The pupils in the classroom are in a limited environment; they cannot live a full round of daily life there, and thus the direct association between the names of actions and the actions themselves is weakened. At home, a child gets up, washes, dresses, has its breakfast, etc., all to the accompaniment of language, which is unconsciously absorbed. At school, pictures and demonstrations have to take the place of real action, and many situations

have to be imagined to a greater extent than in the learning of the mother tongue.

5. *Constant correction*—Here again Nature has the advantage, because of the large numbers of people—parents, relations, friends, playmates—who are in contact with the child and on the alert to correct its speech. The child itself, too, can and does correct itself through perception of its own faults. But in the classroom, one teacher with 30 or more children is at a disadvantage. Fortunately, this disadvantage can be neutralized by careful teaching which will prevent a heavy crop of mistakes.

6. *Compulsion or necessity*—Nature's compulsion consists mainly in filling the child with desires which it can satisfy only by using speech. To be happy it must talk. A resourceful teacher can adopt several devices to bring children to use the new language of their own accord, e.g., by arousing their curiosity, taking advantage of their natural inquisitiveness, and by excluding the use of the mother tongue among the children themselves during the English period. On the whole, however, we substitute interest for Nature's hard driving force.

7. *Maximum number of teachers, amount of time and equipment*—One child at home may have 50 "teachers", i.e., everyone with whom it comes in contact, whereas in school it is often a case of 50 children with one teacher. However, it is well to remember that use of language is a group affair, not simply a number of separate dialogues between a teacher and this or that pupil. The trained teacher with 50 pupils knows that he is one of a group of 51 users of the language, and that every pupil who speaks a few words of English is unconsciously providing linguistic experience for the others.

#### NATURE IS LAVISH

That Nature is much too lavish here is shown by kindergarten results, where 20 or more children with only one teacher soon come to use a new medium fluently. As for the amount of time, it is common experience that kindergarten children with three hours a day six days of the week "master" a new language in one school year. The same proportion is observed in Middle schools where languages are taught by the natural process with one hour a day six days a week the children come to use the language easily in three years, not with the full vocabulary of adults, and not with more structure than an English child of the same age would use, but advanced enough to carry on a simple conversation with native speakers of the language. Nature allows more time than is necessary.

As regards equipment—the richness of real environment—the deficiency has to be made up as far as possible by visual aids and as much open-air work as possible. The language classroom deserves to be as well equipped for its purpose as a science laboratory.

8. *Constant revision*—This is a principle not to be lost sight of, though the less conscious it is for teacher and pupil the better. Modern textbooks take care to introduce new material in the framework of the old, so that every lesson is automatic revision. Where we can improve on Nature, and so save time, is in distinguishing between deliberate revision as part of the “mechanizing” process in teaching and the unconscious revision which goes on while what has been taught is being used.

9. *Variety and interest*—We can hardly compete with Nature here, but we can at least avoid the deadly dullness of the average classroom by making it look more like a home than a prison. Every kind of monotony may be avoided in teaching, and lively material may be supplied in textbooks.

10. *Learning speech only*—Educational requirements demand that a pupil should be taught to read and write as well as to hear and speak. Two artificial skills have to be added to the two natural skills of the child who learns its mother tongue only or who becomes bilingual through contact with speakers of a second language. Undoubtedly this requires more time, but as Secondary school results show, where the natural process is followed for hearing and speaking, there is no appreciable delay so long as the reading and writing follow, by however short an interval, the hearing and speaking.

Having considered the positive aspects of the natural process, we may turn to the negative side and observe how much that is unnatural in language learning and teaching can be avoided in the classroom.

## WHAT TO AVOID IN THE LANGUAGE CLASSROOM

—E. V. GATENBY

We have seen that reading and writing are not taught by Nature but that as these skills are necessary we teach them in their proper place, that is, after the corresponding hearing and speaking of the material have been mastered.

Other notable features of our classroom procedure that Nature ignores, and that we ourselves as teachers should do well to ignore, are inactivity, learning through written symbols, ignoring of situation monotony, grammar as **grammar**, and **translation**.

It may be granted at once that no teacher can tolerate uproar and confusion, that the children cannot be on the move all the time, and that there are limits to action in the classroom. There is, however, a great difference between the maximum of activity that can be allowed without upsetting discipline, and the maximum of inactivity where children sit and listen to the teacher, or are made to read silently. Very often the only busy person in the room is the teacher.

The principle to bear in mind is that language is learnt through use, and that the use of it is almost always accompanied by activity of some kind. Pleasurable activity is the secret of success in kindergarten language assimilation. In our Secondary school classrooms we need more group work, projects, handwork, language games, story-telling by the children, dialogues and plays, drawing and colouring, correcting dictation given by pupils, writing on the board by pupils, etc. And a reasonable amount of work in other environments should be done.

### WRITTEN SYMBOLS

Learning through written symbols is to be avoided in the very early stages, but no serious disadvantage seems to follow when, about half-way through the first year, children of ten see new words in their textbooks before they hear them. The danger is that they will form a strong visual image without connexion with the aural image, and this is why a teacher must be on the alert to get prompt and continued response in speech from his pupils.

Ignoring of situation often arises through too close adherence to the textbook, which cannot supply every picture that is needed, and often leaves on the teacher the onus of supplying situational back-grounds. Thus one lesson may deal with sun, moon, stars, day and night without any regard to classroom time, or provide colourless pictures of flowers, a rainbow, and a national flag. There is also a tendency to teach lists of words such as greetings, the names of young animals, the principal parts of verbs as mere names to be remembered instead of as sounds to be used in close association with a situation.

Monotony arises when an unimaginative teacher in a dreary classroom teaches day in and day out in the same old way, never varying the sequence or method. Nature provides variety, variety produces interest, and interest results in unconscious absorption of knowledge. The unregulated experiences of life are the strongest and regulation we now know, should be reduced to a minimum in the teaching of any subject.

In addition to avoiding monotony in his instruction, the teacher should seek to provide relief from dullness in the classroom by changing the pictures frequently; putting up new phrases; bringing the back row of pupils to the front, seeing that different flowers appear on her table and are noticed, and always having something new in reserve. Singing competitions, using different types of dictation, adding to the material of the textbooks, seizing any new situation that may arise for new linguistic experience—all these help to remove dullness.

### GRAMMAR AS GRAMMAR

Jespersen said that nobody should study grammar until he knew the language. Certainly for children the approach to language is not through grammar. This is not to say that they do not learn grammar as they learn the language. A large part of the correction to which a child must submit in the natural process is grammatical, as when it is made to repeat correct irregular plurals, use "an" when necessary, and to get its past tenses right; but it is supplied with facts for repetition, not rules for application. Grammar exists and it must be taught.

The point is that Nature does not teach grammar as a subject but the observance of grammar in use of the language. In the classroom, then, grammar will accompany the language throughout, and where, with children of ten and over, who can understand the application of rules, knowledge of a grammatical law may be helpful, there is no reason why we should shy away, from common grammatical terms.

All will agree that these would be avoided in the kindergarten. Their use with children whose reasoning powers have developed further is guided by teaching requirements. The essential is that grammar should not be touched apart from the language-learning requirements. There is no situation in pure grammar, and the "examples of usage" that usually accompany it in grammar books are for the most part isolated and often synthetic.

Grammar can be interesting as a subject in itself when the mind is mature enough for it, and older children appreciate the explanations of why 'that' cannot be substituted for 'who' in certain structures, why some relative pronouns may be omitted, or how to avoid unrelated participles. We shall not be far wrong if we supply as much grammar to our pupils in the second-language classroom as they might expect to be given—for correctness' sake but without special terminology—at the corresponding stage in the learning of their mother tongue.

## TRANSLATION

We distinguish between translation as an exercise or a method and use of the mother tongue for certain purposes. It is generally recognized now that the mother tongue should be used (a) for a preliminary talk to the children of 10+ on how they are going to be taught why they should learn English, etc.; (b) to give meaning quickly where for some reason there is difficulty in conveying it in any other way; (c) to give instruction about homework to be done, etc.

The rule must always be: minimum use of any language but the one being taught. There is no need for example, to ask for a translation as a test of comprehension. Teachers are apt to forget that understanding of the meaning of a word is only a small part of the teaching process, and that it may be delayed for a long time. Use of the word in the right situation is what is important.

Translation, like grammar, is for use when the second language is known, and it can then be practised as an art with good results. It is, after all, a form of composition in which the subject matter is supplied. The secret of good translation seems to be recognition of the fact that there is a stage between the two languages where the idea stands bare, without the dress of thought. It is not a process of substituting one set of words for another, but of extracting the idea from a sentence or paragraph in one language and then clothing this idea in the words of another language. It has no place in the Middle school.

Experience shows that in any country adherence to the principles of the natural process and avoidance of what is unnatural lead to success in the second language teaching of children. That there is still widespread failure may be put down to non-observance of these principles. The reasons for failure are usually given as incompetent teachers, unsatisfactory methods, poor textbooks and lack of equipment.

It is noteworthy that the trained and efficient teacher can overcome all difficulties. He is in fact the key to the whole problem. His methods will of course be satisfactory, he knows how to circumvent the hastily-written textbooks, and he soon gets together, often ingeniously, the necessary equipment. But nothing can save the incompetent teacher or his unfortunate pupils.



## MATHEMATICS FOR THE CHILD

—MARJORIE W. REID

I recently met a technical assistance expert who was complaining bitterly about the lack of understanding of their subjects among young men applying for work in the scientific field. He had interviewed a number of honours graduates in physics for various posts, none of whom could tell him the units in which force, work and power are measured. From this, he said it was clear that they understood absolutely nothing about their subject.

It may seem that the experience of a five-year old at school in this country is far removed from this problem, but in fact there is a close connexion. The child was learning to add  $25 + 43 = 68$  and a few days later,  $25 + 48 = 73$ . Certainly she could count up to 100. She knew she had five fingers on each hand and 10 in all. With numbers up to five she was fairly facile—between five and 10 she was uncertain and counted on her fingers. She did not know that  $2 \times 3 = 6$  without counting. Her work involved no problems like sharing 10 sweets between two children, or comparing the four annas in her pocket with the six annas in her friend's. Such problems seemed too trivial for her, although in fact she had to think about them before she could solve them. No! she must practise adding 25 and 43, and learn to "carry" before she understood that 43 was four tens and three units; she has not yet made sure that four tens are 40. She probably has not yet realised that two and two are always four.

But she always gets her sums right. She is an intelligent child, and anxious to please, so she settles down at school to do what she is told with as much understanding as she can muster, and she is pleased when she gets her sums right because then she is praised. So she will go on to the next stage, always ahead of her understanding. Arithmetic will be all right if she can only remember what it is you have to do to get the right answer. If she hasn't that kind of memory she will always be "weak" in arithmetic; it will be a misery, with teachers and parents scolding and unsatisfied.

In any case, unless she is very intelligent indeed it will remain a mystery, a kind of magic you perform, a subject to be memorised like the facts of history, or a foreign language. The reasoning behind some of the simpler processes may dawn on her as she grows older, or it may not. Much of it will remain incomprehensible—the peculiar things you do to find whatever is meant by H.C.F. and L.C.M.—the odd behaviour of recurring decimals—the magic you do with the decimal point to get the right answer when multiplying or dividing. If she has a docile and uncritical mind she will learn to do as she is told and will pass her examinations, but the moment she is faced with an unfamiliar problem she will be lost. When her school days are over she will sigh with relief,

and forget the lot, except the small amount she can't help using in her daily round, which will certainly not include H.C.F. and L.C.M. If she doesn't forget it, will it make an anna's worth of difference?

### MATHEMATICS AND PROGRESS

But mathematics is the basis of all material progress, the foundation of all science, a necessity for all technical development. One can make higher claims, but these are sufficient. The problems that one faces in an advanced technical civilization, are new problems; there are no examples of them in the text-books; one can tackle them only with a sound knowledge of basic principles. How does one get this if from infancy onwards one has been rushed through a syllabus beyond one's comprehension—no time allowed to browse among numbers and make friends with them and play with them, only to learn how to do this kind of unreal sum and that kind of unreal sum? "Don't think about it, do it as I do, then you will get the right answer. That is what matters."

Indeed it matters very little. There are machines now to get the right answers, if one can only tell them how to do the sum. Always it is the reasoning and, not the answer that matters most, and the reasoning must begin in the kindergarten, when the child is still learning to count and making patterns with its counters, when it is still interested in its fingers and its toes—when a problem about there being six apples on a dish and four children each taking one stretches the child's mind and gives it a sense of achievement. Let us teach children to think and not accept other people's thoughts without question—number is the one field where it can check its own results again and again and discover that the world has some order.

### HASTENING SLOWLY

So let us stop asking a child to know its tables up to  $12 \times 12$  when any number above three or four is still a very hazy concept. There are primitive tribes whose number systems go one, two, a lot. Big numbers are a difficult concept and the multiplication table was known only to a few when Napier invented his logarithms in 1614. We expect our children to learn in a few weeks what civilization took thousands of years to discover. Not even the Greeks achieved the modern number system—that is a debt the world owes to India. This is a plea that Indian children be given a chance to grasp it thoroughly before they go on to complicated manipulations with it.

Any educational reform has to begin at the beginning. No improvement in the standard of teaching in secondary schools and universities will help if the children's minds are spoilt before they arrive there. At the secondary school level, a child who is completely ignorant is better material than one who has given up the effort to think and understand.

Look to the kindergarten and see that what is taught to your children makes sense to them. Make haste slowly, it pays in the end.

This is a serious appeal. No society can progress against the innumerable difficulties that beset a world that is becoming more crowded every minute if it cannot bring independent and original minds to bear on its problems. If such minds are not encouraged and stimulated at school, where will they come from? They are not encouraged by being made to run before they can walk. The demand of the modern world, in spite of totalitarian developments, is that people should learn to think for themselves. Mathematics is a field where independent thinking can be checked again and again by an appeal to the facts. Let it be taught that way.

## STUDENTS AND POLITICS

—KHAGENDRA N. SEN

*(A teacher examines the consequences of active participation.)*

Should students be interested in politics and if so, what should be the nature of their interest? Leaders, educationists, guardians, the students themselves have shown that there is no unanimity on how this question should be answered.

National leaders have disagreed on fundamentals which have nothing to do with party politics; educationists are equally diverse in their opinions; guardians are usually too busy to bother about their words so long as they go on passing examinations.

Students may be divided into two classes. Those who are politically conscious usually adhere to one or other of the political ideologies and build up a "students' front" which is loyal to one of the larger political parties; these are generally the student leaders, who are very definite about their role in their respective institutions. The other class is composed of the neutrals who do not bother or even care about politics. I suspect they are in the majority, but a very ineffective one.

### EXPEDIENCY AND TACT

In these circumstances, authority is guided by expediency rather than by any sense of ultimate values. Very often this means that a political issue must be solved by political methods. Teachers as well as heads of institutions have to be politicians first, educationists afterwards, and the result is courteously described as "tact".

"Tact" in this context is the quality that enables one to sacrifice the future for the present; to think in one way and talk in another; or to commit wrong while seeming to do right. There are also other complicating factors. Foremost among these is the large and much more complex problem of student discipline. For well over a quarter of a century students were extensively used in the agitational programmes of the national movement. This active association of students with politics established a tradition which cannot be suddenly abolished because the country has attained independence and has to turn its energies to constructive work.

To immature minds the glamour of agitation, the prominence that attaches to such activity as it hits the headlines, the sense of self-righteousness, if not of idealism, that is aroused in the process, the satisfaction that it gives the natural impatience of youth—all these make a tremendous appeal. And for a good few it subconsciously provides a convenient escape from the rigours of academic work, not only without any need for explanations but actually with honour and appreciation.

Young men are, by and large, extroverts and politics provides immediate satisfaction for such natures.

### EARLY INDOCTRINATION

There is also the influence of early indoctrination. In particular, totalitarian regimes flourish on the early indoctrination of youth. In this respect fascism and communism have the same *modus operandi*. If students can be kept away from active participation in politics, if they can pursue their studies in an atmosphere of academic detachment, learning the rights and wrongs of every "ism", in short if there is aroused in them the spirit of inquiry instead of their being saddled with a set of conclusions attractively phrased, then such totalitarian creeds will not have much of a chance. So the prophets of these creeds are anxious to set up a parallel set of carefully selected study circles (where a severely regimented syllabus based on attractive premises is gone through) as a challenge to the concept of freedom of thought which is the breath of life of democracies and free universities.

These study circles produce most of the "student leaders" who are found to control the students' unions of many colleges. They are the spearheads of the "student movement" working through "cells" in every institution. Over-crowding, the existence of undoubted grievances, a sense of frustration, the spectre of unemployment, poverty, a feeling of helplessness, unsympathetic administration, the poor financial condition of colleges that are dependent for their very existence on fees from students—all these have led students to seek psychological compensation in aggressive movements and, in the process, they have become peculiarly vulnerable to exploitation by political parties.

### BORROWED TACTICS

This is, in addition, the kind of "political action"—strikes, picketing, processions, slogan-shouting, demonstrations and the like—which has been borrowed, lock, stock and barrel, from labour movements. This again betrays the familiar stamp of a leadership that can think of a dispute only in terms of a bid for power, as if a dispute—if it can be called dispute—between a teacher and a student, or even between the authorities of a college and the student, is akin to a dispute between, say, a set of mill workers and their employers.

Should students be interested in politics, and, if so, what should be the nature of their interest? The answer lies in the words "interest" and "politics". Interest must be of the kind appropriate to a student. A student's business is to learn. His interest should be that of a learner. And, as a student, it is his duty to keep an open mind. In other words, he must approach all political questions in the attitude of a learner and he must suspend judgment until he has heard and understood all the issues bearing on the question. He must, above all, develop a sense of

history and cultivate the spirit of inquiry free from party or sectional influences.

### THE GOOD LIFE

“Politics” for a student, should be a nobler pursuit than staging strikes and demonstrations. As Aristotle said, the State exists for the good life. Politics is the science of that State. The student should be able to reach down to the fundamentals of politics and think how to realise the good life through the instrumentality of the State, how to use State-power for the enrichment of human life and to bring happiness and prosperity to its citizens.

To this extent, students should study the problems of the State in a creative and constructive fashion. To build requires infinite patience, particularly when, as in India, the building has to be done virtually from the foundations.

To build a new State requires many qualities. They can best be cultivated during the time spent at a university. But this is not possible if students take part in politics while their minds are still immature. Nor is it possible if the tranquillity and sanctity of the temples of learning are marred by constant disturbance. Professors cannot give of their best in such an atmosphere; administration suffers. The good name of the institution—of the student community—goes down in the estimation of the public. The builders of the nation become boulders in the path of its progress.

There is an oft-quoted saying (though its meaning has become somewhat hazy with use): “Students of today are the leaders of tomorrow”. Therefore, our young people argue, they should be permitted, even encouraged, to join actively in politics. My reply is: “Why not wait till tomorrow?” All the trouble starts from the impatience of the young to be leaders here and now. If the leaders of the future wait a little, not only will the saying be assessed at its proper value but this bother about students joining in active politics will cease to interest any of us.

### PERIOD OF PREPARATION

Students should prepare themselves for the larger political and national life of the country by: (a) hard and prolonged study; (b) learning discipline without which political action is unthinkable; (c) showing respect for traditions which represent the spiritual moorings of the nation; (d) developing a spirit of resistance to all forms of social injustice and inequity; (e) cultivating a sense of objectivity.

Students should keep aloof from active party politics. There are certain students’ organisations which, as they work now, appear to be allied to political parties of the extremist type. Such an alliance is not very healthy. It results in divided loyalties, if not disloyalty to one of the bodies claiming their allegiance. It involves the students concerned

in grave breaches of discipline, leading ultimately to subversive activities and a total disruption of academic life.

Students should learn to accept decisions. This is of the essence of democracy. Politics, it must be remembered, is always a game of give and take. There are, nevertheless, certain absolute values which must never be given up for temporary advantage. For instance no party tolerates indiscipline. Asking students to keep clear of active politics is not the same as asking them to eschew it. Colleges should provide them with ample opportunities to serve fellow students. Students unions should function as real unions and not as appendages of an outside authority.

## WHY ARE WE INDISCIPLINED?

—UMA SANKAR MATHUR

When screaming headlines all over the country proclaim, "Violent Rioting By Students," "Chancellor and Officials Assaulted," and so on we bow our heads with shame. Behind such headlines, is a tragic story of our frustration and failure to develop a social conscience and curb indiscipline within our ranks. It is also a story of the gross neglect, indifference and callousness of our leaders, educational administrators and teachers.

Almost every day stirring speeches are made on "the reorientation of outlook on education and the need for gearing education to the cause of national progress". We are exhorted to equip ourselves for the responsibilities of democratic leadership. While this speech-making goes on, little work is done. Reforms haphazard or untimely, are made still more ineffective by red tape and indecision.

How far are we students really responsible for indiscipline? To a large extent perhaps but not exclusively. When reference is made to students being rowdy, one must bear in mind the restless minority—the real trouble makers. Most students are well-behaved and disciplined. To imagine that the whole student community has gone to the dogs, is to be unduly pessimistic about the future of our nation. It is a matter of regret that many well-meaning persons have branded the majority of us as vagabonds and loafers. This in itself breeds mistrust and gives rise to dissension.

### DELINQUENT MINORITY

The delinquent minority is hardly worthy of being called students. For is not a student supposed to be "one who is engaged in or addicted to study". The activities of these students are anything but studies. They are students merely by virtue of their being in an educational institution. They have no ideals, only a distorted sense of values. Their criteria of being smart range through such things as smoking, having friends of the opposite sex, the capacity to talk back to teachers, the ability to remember statistics about film stars, etc.

On being asked their motives for studying they usually evade the question or say that there is nothing else to do, or their parents have forced them. They have entered the University without realising what a University education means. At the end of the year they resort to some guides or made-easy books for the annual examinations. The terminal tests are too trivial for them to take any notice of. But after all they have to find an escape value for their surplus energy. In the absence of any legitimate outlet, idleness and malice often lead them to create disorder.



Such students are an extremely corrupting influence, one of their constant endeavours being to attract recruits to their fold. Youngsters with impressionable minds just out of school often fall a prey to the lure of the attractions, which this type has to offer. Paradoxically enough, more often than not this type is also able to get a stamp of intellectual ability *i.e.* a degree, thanks to the examination system.

The degree has become our goal, our salvation, in fact everything. But rude shocks await us in the harsh realities of life. This is amply demonstrated by the thousands of educated unemployed in our country today. We have come to regard the University as a mere stepping stone to a job. But we are not the only ones to think so. How many people in our country regard the aims of a University as “the emancipation of young minds, the awakening of the consciousness of personal dignity, and the consecration of fresh recruits to the cause of human progress”.

Very few among us are really aware of what is happening in the country, far less of international affairs. The average student considers time spent on reading outside his course as wasted. In a way he cannot be blamed. Is not the main emphasis in our educational system on the all important final examination? After this self-questioning, an attempt to analyse some environmental factors causing disorder would not be out of place.

Somehow our teachers have lost our respect and confidence. The Radhakrishnan Commission's Report on Universities says: “Quite a number of teachers are satisfied with repeating stereotyped information, which tends to devitalise teaching and to kill interest”, and also: “the success of teacher-politicians who manipulate elections and get for themselves and their friends influential and lucrative positions in their own or sister universities is largely responsible for the deterioration of the morale of teachers and academic standards of the universities”. How can we respect teachers who indulge in such petty bickering and partisan politics? Even if we should not bother about their extra-curricular activities, the majority of teachers do not take interest in teaching: it is torture sometimes to sit in their classes.

We expect education in a University to be a source of interest and enjoyment, whatever our special subject. It should help us to develop intellectual habits, an attitude of mind and standards of social behaviour. Perhaps this is asking too much from the universities today. An authority on education has rightly said that, “It is a good principle of educational administration that a college or university should do nothing that another agency can do as well”. Of the work that present day universities are doing preparation for examinations is done far more effectively by “teaching shops” with the aid of guides and made-easy books.

Another major drawback is the examination system. So haphazard and unimaginative is it that it has rightly drawn the following comment

from the Radhakrishnan Commission, "We are convinced that if we are to suggest one single reform in University education it should be that of the examination".

### ATTITUDE TO SEX

Some of us also have an unhealthy attitude towards sex; in this, environment and lack of education in the home perhaps have a large hand. Whatever the causes, there are amongst us two very definite types. One type feels frustrated in the absence of the opposite sex, while the other in an attempt to attract the attention of the opposite sex lose their sense of proportion and dignity. Co-education, or the absence of it, at the present stage does produce ripples in the calm waters of student life but there is no cause for alarm on this score. In comparison with the other disrupting factors, co-education is insignificant.

Further reasons for our indiscipline are best stated in the form of questions. Their answers are obvious and also indicate remedies.

Has not today's confused and conflicting era an unsettling effect on the youth of the country? Has not the nationalist freedom agitation been carried over to the present day? Are there sufficient facilities for and emphasis on fine arts, drama, music and games? Do most of us have financial security by the way of scholarships, etc.? Do all of us enjoy a proper diet and adequate medical attention? Have anarchical elements no hand at all in frequent violent outbursts on the part of students? Are students admitted with due consideration of their intelligence and industry for successful study? Is there proper cooperation between our parents and educational authorities? Are libraries and laboratories well equipped to afford scope for scholarship and research? This list can be extended further.

### GIVE US THE TOOLS

There is clearly a danger in bringing within the reach of everybody this type of pseudo-education. It merely instructs but does not educate. The dangers of an unstable, ill-educated class for democratic institutions outweigh the disadvantages of illiteracy.

It might appear presumptuous of me, a mere student, to suggest remedies for the present situation but what gives us self-respect and self-discipline is an attitude of trust rather than atmosphere of suspicion and fear. Give us the requisite facilities. We also appeal for the sincere cooperation not only of educational administrators and teachers but of our parents, the political leaders and the public. Then and then only will our lives be of strenuous endeavour to serve the nation well and truly.

## UNIVERSITY LIFE IN WEST GERMANY

—PUNYA SLOKA RAY

My first impression of University life in West Germany was—it is all so very different! England and the English are to some extent familiar to us through books and pictures and historical connexion. Other countries of Asia or even Eastern Europe seem to us less known provinces of our own country. Only in the centre of Europe perhaps do we come upon a pattern of life really and truly foreign.

The German pattern of University education is at once a result and a cause of the spirit governing University life in Germany. The average German student enters the University at the age of 19 or 20. The first few years he spends orienting himself in and out of the many lectures and seminars. Each lecture and seminar course, extended usually over one term of six months, is self-contained. In the seminars the students learn to read a text and discuss a theme intensively, while in the lectures they get broad general views of the landscape of modern knowledge. The Professor is remote, inaccessible except in the lectures, and the higher seminars. It is his assistant who gives most of the guidance in concrete details. In some Universities a day is set apart every week for special lectures designed for students of other faculties and for laymen. This has been adopted recently as a measure against the isolation of the faculties from one another and from the lay public.

### THE DOCTORATE

From the seminars and lectures the students obtain signed and graded certificates. But there is really only one examination, the final Doctorate. The Arts student has nothing else, with the exception of Latin perhaps or sometimes Greek, to weigh upon his mind. For the student of the Natural Sciences or Mathematics, however, a little examination in Philosophy and a big one in his own and related subjects are now obligatory. For those who want to be school teachers there is a State examination. And there are a number of intermediary examinations for students of Law or Medicine.

After five or six years of study at the University level the German student is ready to try for the Doctorate. The last two years are spent in some degree of contact with a Professor in the preparation of a dissertation, which must, so says the accepted theory, advance the scientific knowledge of mankind by a step, however small. The guiding Professor recommends the work to the Faculty and another Professor, usually from the same University, also examines it. After that the student has to appear in an oral examination taken by the

guiding Professor, sometimes together with a colleague, sometimes alone. The successful candidates are not put up in a serial order of merit, but merely classed in four divisions.

For those who want to remain in University life the Doctorate is, however, just the beginning of the struggle. One may get the not-too-well-paid job of an assistant to a Professor. In any case the scholar must submit another, much longer dissertation to be accepted as a Lecturer. A Lecturer usually receives only a share of the fees paid by students attending his classes. If he has real ability and some luck he becomes a Professor sometime between his 35th and 50th year of life. Once a Professor he has a social status both envied and venerated. And he is at last ready to start his life's major work. The consolation for all the insecurities of this type of a career is the great freedom of teaching in the Universities.

### FREEDOM

An extraordinary degree of freedom characterises University life in Germany not only in the matter of studies but also in social and moral behaviour. To live alone in town in a small room rented from a landlady is the usual practice for boys and girls alike. Hostels are few; they have been built mostly after the war. A good number take both boys and girls. All the fears of the moralist are real in the West Germany of today. To the bewilderment of the Indian student fresh from home, both genuine freedom and its abuse are more or less generally accepted.

University life for a student in West Germany is the beginning of life in the everyday world. It is not just an extension of school. German boys and girls begin their University life about the age at which we leave it. They come to the University more mature than we are and are thrown back upon themselves more. This is perhaps the difference.

If the keynote of German University life is freedom, the dominant tone is seriousness. The social life of the typical German student is, for example, a mixture of extremes. Most students live alone, each in his own ivory-tower. And the Germans are surely the hardest-working people on earth!

Since everyone is very busy one does not often meet friends. But in season there is dancing. And there are several seasons in the year; February, March and December are the most popular. The German student dances with an enthusiasm that seems for him, a compensation for his self-denial the rest of the year. On such occasions he can be over-familiar. Living as he does between the contradictions of hard, disciplined work and hard, indisciplined pleasure he does not seem to be at ease in this world.

## SOCIAL STRAINS

Apart from the peculiar intellectual heritage of the nation there are certain social factors working to produce this strain. Many of the students in German Universities, perhaps half, have to earn as they study. Though there are many rich people in Germany, today it is unmistakably a country of the middle classes. The middle class seems to be the only social reality, the rich and the poor being merely comparative variations within it. And the middle class parent in Germany is traditionally unwilling to incur much expense for boys once they are beyond school age and capable of earning. It is of course slightly different for girls. Since the decay of arranged marriages the University is the proper place to meet a future husband and the wise parent knows it. The preponderance of girls over boys in the Universities is therefore understandable. Even so, quite a number of girls have to work in the vacations for their pocket money and little luxuries. There are a number of scholarships to aid students. And by passing an examination every six months almost anybody can get exempted from the necessity of paying tuition fees. There are canteens run by the Universities and religious organisations at which one can get tolerable food at half or one-third the market prices. Hostels are few, but they are cheap and, if built after the war, comfortable. And there are of course fraternities. These are student societies with houses of their own, in which members may live or at least have meals.

Life in them is peculiar. Junior boys are tyrannised over by seniors. Fencing, beer-drinking and revelry are the chief preoccupations of the inmates. But the food provided is often good. Moreover there is nothing like the badge of membership from one of the more famous fraternities to get one a job. Every well-placed ex-student member is obliged to help his younger fraternity brother. It is an institution that is somewhat similar to our old caste system. During the long vacations from March to May and August to November the average German student does one of three things. He takes a rucksack and goes off to sunny Italy, France or perhaps to Spain, hitchhiking the way and staying in the Youth Hostels, he sits up in his little den and studies, or he goes out to work somewhere in Germany and earn. He may drive trucks, milk cows, or travel as salesman. One of my friends, who wrote brilliant articles on Husserl's philosophy and also plays of considerable promise, worked on the railroads laying tracks during his vacations.

## NAZI LEGACY

The legacy of the Nazis is not primarily the memory of the concentration camps, for few knew of the existence of these things till

long after the end of the war. Anyhow the German people of today just want to forget everything about the Nazis, the sooner the better. There are a few old Nazis left, but they command no influence among the students. During my stay the politicians of the State of Lower Saxony nominated such a man for the minister for cultural affairs. The students and the Professors of the University of Goettingen put up a fight against the nomination and they won easily, backed by the students and the scholars of the entire nation.

The Nazi legacy is to be found rather in the twisted character of many older people who were forced to submit to falsehood and tyranny. It is in the obsession of keeping-on and getting-on in the younger people who had to go through the post-war famine, the currency reform and the miraculous boom. The guilt and cowardice of the older people and the universal scramble for existence in the years after the war may be responsible for that inner tension in today's Germany which I noticed in no other country except France. In spite of this, however, the mental atmosphere of Germany is healthy and future hopeful.

I cannot close without mentioning the abounding courtesy of the German people towards the foreign students who flock to their Universities. With negligible exceptions during my entire stay, I was treated with great courtesy. Partly because of my ignorance of local rules and customs and partly because of temperamental inability to follow the extraordinarily elaborate discipline of the people, I have been several times in the wrong. But they could understand my difficulties and forgive easily. I never met colour feeling in any form except from mere curiosity.



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 Modern Book House, Jawaharganj.

**JULLUNDURCITY**—  
 Hazoaria & Sons, Mai Hiran Gate.  
 International Book & News Co., G.T. Road (R).  
 Jain General House.  
 University Publishers.

**KANPUR**—  
 Advani & Co.  
 Sahitya Niketan.  
 Universal Book Stall, The Mall.

**KAPASAU (RAJASTHAN)**—  
 Namdhar Brothers (R).

**KARNAL**—  
 Malhotra & Co.

**KHANBWA**—  
 The Suresh Trading Co.

**KHURLA**—  
 Bharati Mandir, 31-C., Nai Basti.

**KODARMA**—  
 The Bhagwati Press, P.O. Thumsaitelaiya.

**KOLAHPUR**—  
 Maharashtra Granth Bhandar (R).

**KOTTAYAM**—  
 The Vidyarthi Mitram Book Depot, P.B. No. 8.

**KOZHIKODE**—  
 K. P. Brothers (R).

**KUMTA**—  
 S. V. Kamat.

**KURNOOL**—  
 Fineland Agencies (Regd.).

**LUCKNOW**—  
 Bhadrakrishna Book Co., Ltd., Hazaratganj.  
 Sahitya Book Depot, 84, Hazaratganj.  
 Law Book Agency, 29-A, Katchary Road.  
 Ram Advani, Hazaratganj.  
 Sochana Sahitya Depot (State Book Depot, U.P.).  
 Universal Publishers Ltd., Plaza Bldgs.  
 Upper India Publishing House Ltd., Literature  
 Palace.

**LUDHIANA**—  
 Loyall Book Depot.  
 Mohindra Brothers (R).

**MADRAS**—  
 Accounts Test Institute, P. O. 760, Egmore.  
 C. Subhiah Chetty & Co., Triplicane.  
 Higginbothams.  
 K. Krishnamurthy, Mount Road.  
 Presidency Book Supplies, 8, Pycrofts, Triplicane.  
 Simham Publishing Co.  
 \*Supdt. Govt. Press, Mount Road.  
 Vardhachary & Co.

**MADURAI**—  
 E. M. Gopal Krishna Kone, North Chitra Street.  
 Viveka Nanda Press, 48, West Masi Street.

**MANDSAUR**—  
 Sikhawal News Agency.

**MANGALORE**—  
 U. R. Shenoy & Sons, Car Street.

**MASULIPATNAM**—  
 M. Seshachalam & Co.  
 Triveni Publishers.

**MEERUT**—  
 Hind Chitra Press.  
 Loyall Book Depot, Chhipi Tank.  
 Prakash Educational Stores.  
 Universal Book Depot.

**MORADABAD**—  
 National Book Depot.

**MYSORE**—  
 Chandra Stores, New Statue Circle (R).  
 H. Venkataramaiah & Sons, New Statue Circle.  
 J. Nanu Mal & Sons, Lansdown Bldgs.

**NAGPUR**—  
 New Book Depot, Modi No. 3, Sitabuldi.  
 \*Supdt. Govt. Prg. (M.P.).  
 Western Book Depot.

**NAINITAL**—  
 Consul Book Depot.

**NEW DELHI**—  
 Ajmeri Gate Paper & Sty. Mart, 1/6-B, Block  
 Ajmeri Gate Extn.  
 Aarrit Book Co., Connaught Circus.  
 Bhawnani & Sons, Connaught Place.  
 Central News Agency, Connaught Circus.  
 Empire Book Depot, 278, Aliganj Lodhi Road.  
 English Book Stores, 'L' Block Connaught Circus.  
 Faqir Chand Marwah & Sons, Khan Market.  
 Hind Book House (R).  
 Jain Book Agency, Connaught Place.  
 Jayna Book Depot, Bank Street, Karol Bagh.  
 Laxmi Book Store (R).

**NEW DELHI—contd.**  
 Mehra Brothers, 50/5, Kalkaji.  
 Navag Traders, Original Road, Karol Bagh.  
 Oxford Book & Stationery Co., Scindia House.  
 Ram Krishna & Sons (of Lahore), 13/13, Con-  
 naught Place.  
 Raj Book Depot, 1, Bengali Mal Market.  
 Saraswati Book Depot, 15, Lady Hastings Road.  
 Sikh Publishing House Ltd., 70/C, Connaught Place.  
 Suneja Book Centre, 24/90, Connaught Circus.  
 Taneja Book & Stationery Mart, Rajina Road.  
 United Book Agency, 47, Amritkaur Market,  
 Paharganj.  
 Venus Sales Corpn. (R), Karol Bagh, New Delhi.

**ONGOLE**—  
 Shri D. Sreekrishnamurthy, Prop. Abhvedaya  
 Book Circulating Co.

**PALGHAT**—  
 Shri V. K. Ramalingam, Vadakkanthara (R).

**PATHANKOT**—  
 The Krishna Book Depot.

**PATIALA**—  
 Jain & Co., Bazar Shah Nashin.  
 \*Supdt., Bhupendra State Press.

**PATNA**—  
 Book Centre, Near B. N. College.  
 J. N. P. Agarwal & Co., Padri-ki-Haveli.  
 Lakshmi Trading Co., Padri-ki-Haveli.  
 Moti Lal Banarasi.  
 Novelty & Co. (R).  
 Pahuja Brothers, Rajendra Path (R).  
 Scientific Book Co. (R).  
 \*Supdt., Govt. Printing, Bihar.

**POONA**—  
 Deccan Book Stall, Ferguson College Square Road.  
 Imperial Book Depot, 266, Main Street.  
 International Book Service, Deccan Gymkhana.  
 N. R. Bhalerao, 602, Shanwar Path.  
 Raka Book Agency.

**PUDUCCATTAI**—  
 P. N. Swaminatha Sivam & Co., East Main Street.

**RAIPUR**—  
 Kasimud-Din & Sons, Gole, azar (R).

**RAJKOT**—  
 Mohan Lal Dossabhai Shah.

**RANCHI**—  
 Ideal Book Stores, Main Road.

**REWA**—  
 \*Supdt., Govt. State Emporium., V.P.

**ROORKEE (U.P.)**—  
 Cambridge Book Depot (R).

**SAGAR (M.P.)**—  
 \*Students Book Depot (R).

**SECUNDERABAD (DN)**—  
 Hindustan Diary Publishers.

**SHILLONG**—  
 Chapla Book Stall (R).  
 \*Supdt., Assam Sectt. Press.

**SIBSAGAR (ASSAM)**—  
 T. Chuttya (R).

**SILCHAR (ASSAM)**—  
 Shri Nishith Sen (R).

**SIMLA**—  
 Azad Kitab Mahal, Stall No. 13.  
 J. Ray & Sons (India, Ltd).  
 Maria Brothers, 94, The Mall (R).  
 Minerva Book Shop, The Mall.  
 New Book Depot.  
 \*Supdt. Himachal Pradesh Govt.

**SIROHI**—  
 Mijaphand Balbebutmal Haran, Kessar Road.

**SONEPAT**—  
 United Book Agency.

**SRINAGAR**—  
 The Kashmir Book Shop, Residency Road.

**SURAT**—  
 Shree Gajanan Pushtakalaya, Lower Road.

**TRICHINOPOLY FORT**—  
 Palanippa Brothers, Teppakulam.  
 S/S Krishnaswami & Co., Teppakulam.

**TRIVENDRUM**—  
 International Book Depot, Main Road.  
 \*Supdt. Govt. Press, Travancore-Cochin.

**VELLORE**—  
 S. Venkatasubhan, Law Booksellers.

**VIIJAYAWADA**—  
 Hindustar. Diary Publishers.

**UDAIPUR**—  
 Vidya Bhawan (R).

**VIZAGAPATAM**—  
 Book Centre, 11/97, Main Road.  
 Gupta Brothers, Vizia Buildings.  
 M. S. R. Murty & Co.

**WARDHA**—  
 Swarajya Bhandar, Bhaji Market.  
 Govt. of India Kitab Mahal  
 Queensway, Opposite India  
 Coffee House, New Delhi. } For local sale only.  
 Govt. of India Book Depot,  
 8, Hastings Street, Calcutta. }  
 High Commissioner for India } For all enquiries and  
 in London, India House, } orders from Europe  
 'wych' id W.C.2. } and America.