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Language in Education

By

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PREFACE

MR. MICHAEL WEST has asked me to introduce his work to the public by a few words of Preface, and I do so with great pleasure. I take it that in India he is already well known through his earlier work, called *Bilingualism*, and the textbooks which he has produced to enable the Indian children to learn English ; but even in India I hope that, by the publication of this book, his work will receive still more attention. For I know no one, either in the East or in the West, who has devoted so much energy to experimental work and research ; no one, indeed, who has envisaged the problem in the same thorough and careful manner as Mr. West. In Europe, indeed, he is, as yet, scarcely known, and yet his methods of study are of equal value for application to any foreign language.

I write as one who has not attempted to investigate these complex problems at all on Mr. West's lines ; the ventures which I have made approach the problem from a very different point of view. For this very reason I am glad to be associated with this book. In regard to some matters I differ rather widely from the author's point of

view, but we are both of us working in a field where co-operation is far more important than to emphasize points of difference. We both of us work and write for students of education, i.e. for teachers who treat the problems of the classroom in a scientific spirit and are concerned solely with the search for truth.

I must not attempt to discuss the large problems of Psychology and Method which are treated in these chapters, but I want to take this opportunity of emphasizing the underlying philosophy which I feel sure animates both of us in giving our time and thought to the foreign language problem. We are living in a world where progress depends upon communication, and upon sympathies and understandings which can only be created when men of varying races and of alien speech come to understand each other. The peoples of India must come to understand a little of what England and the British Empire stand for; and we, if we are to continue to play a leading part in the development of Indian civilization, must take the same pains to understand and appreciate the life of the Indian peoples, through their speech.

In Europe the same problem arises, even in a very acute form. It is certain that the Englishman, the German, the Frenchman and the Russian

will be immensely helped in coming to terms with each other when trouble is taken to understand one another's language. This is the final and sufficient ground for introducing language learning into the schools. We must begin with the children—it is very rarely that a man of mature years reaches a competent power in a foreign language unless he has made a beginning during school years. Books of this type, therefore, are of capital importance, not only for the teaching profession, but for all who care for international peace and goodwill.

J. J. FINDLAY.

NOTE

In preparing this book for a second edition, I have embodied, in two new chapters (VI and VII), material originally published in *The Modern Language Journal* (U.S.A.), XIV/7 and XV/7; I am grateful to the editor for permission. The discussion of speaking vocabulary given in the new Chapter VII still remains inadequate; but I hope to report at a later date the results of experiments, discussion of which would at this stage be premature.

Dacca,
April, 1932.

M.W.

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CHAPTER I

APHASIA IN EDUCATION

Language and Intelligence

THE main purpose of this first chapter is to impress upon the reader how very important this subject is—Language in Education.

The word 'Language' is defined in the dictionary as a 'method of expression.' A few years ago there was a sort of anti-language movement among educationists. 'Our education,' they said, 'merely teaches children to talk, to express without impressions. It is all words, words. Whereas the world is made up of things. Real education should be the teaching of real things. It would be possible to conceive of a deaf and dumb man who was yet highly educated.'

On the other hand, Prof. G. H. Thomson¹ says that deaf and dumb children do not do nearly so well as normal children in Intelligence Tests, and the reason is that they are hampered by language. And Dr. Cyril Burt says, 'Linguistic ability and

¹ G. H. Thomson, *Instinct, Intelligence and Character*, p. 118.

linguistic attainments exert upon the Binet Simon tests a special and positive influence of their own.' Still more significant than this is the fact that dumb children do less well in the Performance Test also—that is, in an Intelligence Test which does not involve any use of words at all.¹

The reason of this is not far to seek.

Language is not a mere means of expression. We do not think first and then say what we have thought. Language is an instrument of thinking. It is more than that; it is an instrument of feeling and an instrument whereby we are enabled to sympathise with the feelings of others. Not only are deaf-mutes backward in intelligence, but they tend to be emotionally crude and insensitive also.²

What is true of the individual is true also of a people as a whole. Just as the dumb boy is hampered by his linguistic deficiency in the development of his thought and his emotion, so also may a people be hampered in their intellectual and moral development by the insufficiency of their education in its linguistic aspect.

How and why this may come to be will be understood better if we enumerate the different kinds of language and indicate what is their func-

¹ C. Burt, *Mental and Scholastic Tests*, p. 183.

² F. Watts, *Abnormal Psychology*, p. 178.

tion in our lives, and then go on to study the effects of linguistic disturbance in the individual.

The Functions of Language

In the first place, language may be divided into two large parts, Inferior and Superior (to use the terminology of Henry Head),¹ or (to use that of Ogden and Richards)² Evocative and Symbolic. This is not a merely logical division; it is actual: for in Aphasia (that is, loss of speech as a result of an injury to the brain) the one is lost, whereas the other remains.³ The Inferior, or Evocative, language is the language of emotion; the Superior, or Symbolic, language is the language of intellectual thought. The aphasic cannot express ideas, but he can still exclaim with joy or anger or admiration. He can still swear.

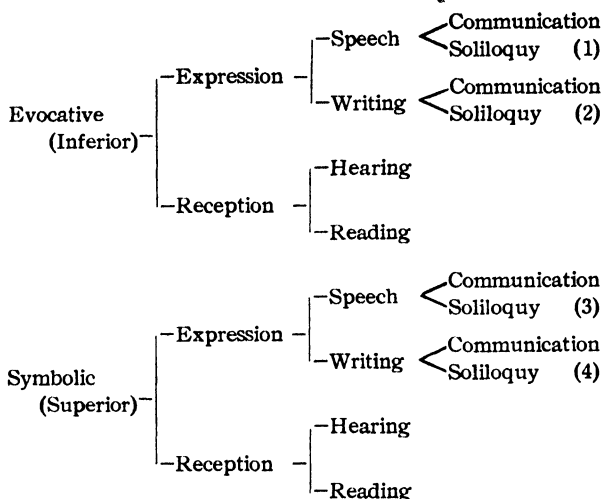
(Needless to say, the words used in this evocative language are those of the mother-tongue.)

Each of these two languages may be used in two ways—for Expression or for Reception. Expression may be divided into Speaking and Writing, and Reception may be divided into Hearing and Reading. Thus we have twelve divisions of language:

¹ Henry Head, *Aphasia*, I, p. 38.

² Ogden and Richards, *The Meaning of Meaning*, p. 375.

³ Head, *Aphasia*, I, pp. 515–16.



Notice the division, 'Communication, Soliloquy.' We are always tending to assume that language is a means of communication and nothing more, whereas a very large part of one's speech—and writing—is not meant for others' ears and eyes at all.¹

Words and Thought

We may realize the importance of verbal language in thought by studying the attempt of the deaf-mute to express himself by means of

¹ Example, (1) *above*. Swearing. (2) The private diary. (3) The speech scheme in thinking out a problem. (4) Writing out notes of an article before composing it.

gestures.¹ All goes well so long as it is some simple question or statement involving verbs of action or concrete nouns, but the difficulties arise so soon as one comes to relationships, and still more so when one comes to abstract terms. I can tell a simple story in gesture language (in the language of the Calcutta Deaf and Dumb School). But imagine trying to tell the substance of this chapter in gesture language.

Thomson² gives an interesting experiment illustrating how far words are a necessary part of thought. Close your eyes and consider what would be the consequences to a nation of Free Railway Travel. A great deal of visual and other sensory imagery arises—of crowded railway stations, of carriages too full for comfort, heat, smells, and so on. But mingled with these are certain outcroppings of words—‘*Buksheesh* to the guard to get a place’; ‘Corruption’; ‘What one pays for in First Class—space, privacy.’ The more one tries to drive the argument along, to think just what the consequences would be, the more does thought crystallize out into words. The more abstract or difficult the theme, the more does thought resolve itself into a more and

¹ H. C. Banerjee, *The Gesture Language of Deaf-Mutes* (Indian Science Congress, 1928).

² Thomson, *op. cit.*, p. 111.

more careful selection of words and more and more exact analysis of their precise meanings. 'Men may think out things,' says Wells,¹ 'with drawings, with little models, with signs and symbols upon paper ; but speech is the common way, the high road, the current coin of thought.' Bergson puts the matter perhaps more clearly. Thought, he says, is a continuous, ever-changing stream. It is extended in time only. It flows like a torrent past our feet. We have to stop that stream and spread it out before us, make it divisible and analysable. He describes the process as a continuous movement whereby the 'nebulosity' of idea is condensed into distinct auditory images.²

The Errors of Language

Now words are elusive things. They are mere receptacles into which a certain meaning may be put. Their very adaptability and their power of varying their meaning makes them superior to gestures and, at the same time, renders them far more liable to error. When we put a certain meaning into a word-vessel, the vessel exerts a certain reaction upon the meaning. For example, when I wished to speak, above, of the temporal

¹ *Mankind in the Making*, cheap edition, 1914, p. 19.

² *Matter and Memory* (English translation), p. 154.

extension of living thought being—solidified—condensed—frozen—materialized—crystallized—cinematographed—into words, I selected the word ‘condensed,’ and that committed me to the image of a stream of wind-blown mist. Now I did not quite mean ‘condensed’; I wanted an idea also of breaking up, analysis. If I had said ‘cinematographed,’ that would have given a different twist to the idea. Indeed, I am unable to put that idea into any words without spoiling it in one way or another.

The first danger in the use of words is of not saying what you mean. The greatest masters of language will pore for hours over the selection of a word and yet at the end perhaps not quite say what they mean. How great, then, must be the error of the average man; and how vast that of a man who is suffering from a defective linguistic education, or even has no education in the use of language at all.

When we speak to someone else, we make the assumption that they are putting into their word-vessels the same ideas as we put into ours. If this assumption is to be justified, it is obviously necessary that both parties to the conversation should know what ideas these word-vessels ordinarily contain, and are supposed to contain. If I ask the surgeon for an anæsthetic when I mean

an analgesic, I am liable to suffer a great deal of unnecessary discomfort, if he takes me at my word. Even where two masters of English are conversing, their words never mean quite the same to the listener as they meant to the speaker. How great, then, is the error of the ordinary man, who seldom troubles to discover the real and correct meaning of the words which he uses and the words which he hears; and how vast the error of those who have never been taught to examine the contents of words at all, who have perhaps all their lives never suspected that they are misunderstanding and are being misunderstood every day and every hour.

Language and National Life

It is easy to appreciate the truth of these remarks in the case of the individual, blundering through life in a haze of misunderstandings of others and false expressions of himself. But what is the effect of this upon a whole nation, so trained in their schools that they use words carelessly, meaninglessly, blunderingly in their own thoughts and in their outward expression, so ignorant of the correct usage of language that the ideas of others come to them dimmed by a cloud of misapprehension?

It is well known that the unity and well-being

of any people depend above all on efficiency of communication.¹ How, then, can a people develop a unified and healthy national life if their thoughts are falsified at the source by the inaptness of the words used in thinking them, falsified again in their blundering expression, and falsified yet once more by the receiver's ignorance of the meaning of the words in which they are expressed?

Aphasia and Defective Language-training

What I wish to emphasize, above all, is that such a condition, in a nation or in an individual, is not a mere absence of expression, as in the case of a man who is speechless from a cold in the head, or of a state whose postal system is disorganized by a strike.

Here thought goes on as before; the only loss is in the instrument of communication. But loss of language involves loss of thought also. 'When a man has lost the power of propositionizing and cannot speak or write, when both internal and external speech have been destroyed, it is obvious . . . that he will be lame in thinking.'² This quotation is from Henry Head and describes the mind of an aphasic. For the words 'lost' and 'destroyed' in the above passage substitute the

¹ W. McDougall, *The Group Mind*, p. 134.

² Henry Head, *Aphasia*, I, p. 49.

words 'undeveloped' or 'badly trained,' and we have a description of the mind of the educational aphasic.

The essential trouble of the aphasic is, according to Bergson, a looseness of bond between words and ideas. There may even be a flow of words without any corresponding ideas. 'Aphasics,' says Bergson, 'incapable of uttering a word spontaneously, can recollect without mistake the words of an air, or they will fluently repeat a prayer, a series of numbers, the days of the week'—and yet these utterances represent and are accompanied by no conscious mental process. (There is a story of an Indian candidate who began his examination paper with the words, 'As we have seen in the last chapter' . . .)

Where the aphasic makes an attempt at speech, numerous useless and meaningless words intrude. (Such superfluous words are always a symptom of strain in speaking, as in the case of an orator before a difficult audience, or of a composition written direct on to the typewriter.) Words are also used by the aphasic with a wrong meaning attached to them, or with a warped or inadequate connotation.

To quote again from Dr. Henry Head:¹

¹ Head, *op. cit.*, I, p. 99.

In (some) varieties of aphasia he may not be able to evoke the word which he desires to use and, in his efforts to find it, gives vent to sounds which do not correspond to any recognizable language symbols. If he is of a lively temperament he tries again and again to correct his faulty nomenclature and may fly to metaphorical expressions in order to circumvent his want of ability to express his meaning. . . . With a syntactical disorder of the language the patient talks with great rapidity when started. He talks fluently, in short, jerky sentences, slurring or omitting many of the junction words. Even when they are present it is difficult to hear the articles, conjunctions and other components necessary to a perfectly formed sentence. . . . When the patient mispronounces a word, he does not as a rule go back and try again; he dashes on, in the hope that he will be understood. If checked and asked to repeat what he has said, and especially if told to speak slowly, he usually becomes confused or angry. The more he is pinned down to some word incomprehensible to his hearer, the more confused he grows and the more incomprehensible his speech. . . .¹

Compare this description with the speech in an Indian classroom or a 'viva voce' in any of our Indian examinations.

All this, which was written about a patient whose powers of speech have been partially destroyed by cerebral injury, is true also in lesser degree of the child or youth whose powers of speech have never been properly

¹ Head, *op. cit.*, I, p. 230.

developed or trained. 'We learn to speak,' says Head, 'by constant practice, exactly as a lawn-tennis player acquires the power of executing a difficult stroke.'¹ Whether the effects of that practice are absent because of injury to the brain, or whether it be that such practice was never given, or was badly given, the result is the same. The mental confusion and inefficiency in behaviour of the aphasic is not due to any general disturbance of the mental mechanism. Says Head,² 'Even when a lesion of the brain has destroyed the power of symbolic formulation and expression, the patient can still think, except in so far as the affected form of behaviour is necessary for thinking. The mind as a whole is unaffected, but specific psychical processes are interrupted or rendered difficult.'

The general consciousness and the mind as a whole remain intact, but so large a part is taken by language in the complex thought-processes of civilized man that the effect is almost as great as an actual lowering of the level of intelligence. The impairment of linguistic power by so many degrees lowers the level of thought to that of those lower intelligences which need only that lower degree of language ability.

¹ Head, *op. cit.*, I, p. 514.

² Head, *op. cit.*, I, p. 535.

The Evocative Language and Emotional Integration

We have thus far discussed the effects of defective training in the so-called 'Superior' language, the language of knowledge and reasoning. Let us turn now to the second, and to my mind perhaps more important, function of language.

All men, whatever their education, be they poets or common labourers, share in common certain fundamental instincts or 'urges.' We all love, and we all hate, and we all grieve, and we all get angry, each in our own crude ways. Fundamentally the cockney's spooning on the Brighton beach is the same as the balcony scene in *Romeo and Juliet*. It is the same, and yet not the same. For the very nobility of the expression in the latter case seems to have reacted upon the impulse and refined it. If 'Liza were carried away by a wave, we cannot be *quite* sure that Alf would go to her rescue; we are sure that Romeo would rescue his Juliet from a hundred waves.

This process of refinement of an impulse is called 'sublimation.' It makes a crude animal passion, seeking satisfaction at whatever cost to the victim, into a love which serves without any hope of return. It may even so far transmute it that the impulse towards an individual of the opposite sex becomes a generalized altruistic enthusiasm

directed towards mankind, or towards some group of mankind, as a whole. And so, too, the motive force of hatred, which makes the village faction and ends in a murder case, may be transformed into the moral indignation of the reformer. Or perhaps, effective expression of hatred may so reveal the hideousness of its countenance that self-deceptions fall away; we see our own distorted countenances and shrink back from them in horror.¹ Or again, a verbal expression may serve simply as a relief of pressure and enable us to carry on sanely until the strength of the impulse dies away. We sit down and compose a real 'snorter' of a letter; we tell the man just exactly what we think of him; and, having done so, we feel better; and, very wisely, we drop the 'snorter' into the wastepaper basket.

In these ways the simple impulses of primitive man are in the cultured man selected and modified. The nobler impulses are refined by words and fixed in words—lest he forget them. The baser are revealed in words, so that he may avoid them, or released in words, idle words, like the steam of a safety valve.

All this is, of course, essentially a function of the mother-tongue, and the efficiency of these

¹ E.g., John Galsworthy, *The Skin Game*.

processes depends in no small measure upon education in the mother-tongue.

The Effects of Defective Language-training

Let us consider, then, the emotional defects or abnormalities which we shall expect to find in an individual, or in the youth of a people, where education in the mother-tongue has failed to provide an adequate instrument for the regulation and expression of primitive impulses.

We shall expect to find a certain emotional instability. Indignations and enthusiasms pass like ruffles of the wind across a pool; for there is no force to analyse and reject those that are worthless and essentially transitory, no means to encourage and preserve those which are worth-while.

Second, we shall expect to find a certain excess of those negative attitudes which it is the function of language to reduce and to dispel—those destructive urges which are so much easier than the positive constructive impulses of love, co-operation, and achievement. Hence we find agitations where we should find enthusiasms, ‘anti-something’ unions in place of patriotism; and, instead of groups based upon friendship and community of interests, parties motivated by communal antagonisms.

Thirdly, we note a certain artistic sterility—or

rather an output less than might be expected; and that output is formal and a little drab. There is rather an excess of politics of a barren kind. In their speech and in their writings we find curiously little of the normal Utopianism of youth, but rather an outflow into ill-temper of impulses which have failed to find their normal realization in construction and artistic expression.

It is in the nature of youth to look forward, to create, to build fabrics of dreams; and most men's lives are painted within the outlines of their youthful imaginings. But, with a wordless people and boyhood robbed of its colour-box, inarticulate youth ebbs into unidealized age.

Summary

The purpose of this chapter has been to emphasize the idea that language is not a mere means of expression, a mere medium for conveying our thoughts to other people. It is the stuff of which our selves are made; it is the most important of all formative influences in moulding not only the intellect, but the character also.

'Language in Education' is not like 'Arithmetic in Education' or 'History in Education.' Those are subjects, and defective instruction in them leaves a gap in the child's education. But defective language-teaching causes a disease at

the root of the mind itself. It disorganizes the whole psychic system, of an individual, and of a nation.

I have drawn a gloomy picture of the languageless people. I have nowhere said that this description applies in its entirety either to Bengal or to any other province. To Bengal I believe that it does apply, in part; and, if something remedial is not done soon and effectively, it will apply in a still larger measure. I leave it to the reader to consider how far it applies to his part of the world also. Perhaps it applies in lesser or greater degree to all parts of the world,—all in which a popular education has outgrown efficiency. And that, alas, is true of most parts of the world.

CHAPTER II

THE MOTHER-TONGUE

MOST of the maladies of the languageless people which I described in the first chapter are due far more to inefficiency in the mother-tongue than to defect in the learning of a foreign language.

I shall devote a large part of this book—indeed almost all that remains—to the discussion of problems in the teaching of English as a foreign language, but I believe that the real root of the evil in the language-situation in this country does not lie in the teaching of English ; that English-teaching is indeed almost a trivial and unimportant matter compared with the urgency of improving the teaching of the vernacular.

Causes of the Indian's Ignorance of his Mother-tongue

1. INSUFFICIENT TIME

Why is it that the Indian boy's knowledge of his own mother-tongue is so bad ?—and the Indian graduate's knowledge also ?

One reason which has been suggested is that

he devotes so much time to the study of English that he has no time left for his mother-tongue. A very brief examination of the facts will show that this statement is not correct.

Let us see what the actual facts are in Dacca :

ALL HIGH SCHOOLS IN DACCA (8 Schools)

CLASS	PERIODS BENGALI		PERIODS ENGLISH		TOTALS	
	Text	Grammar	Text	Grammar and Translation	Bengali	English
3 ...	4.8	2.9	6.0	3.0	7.6	9.5
4 ...	3.9	2.5	5.8	4.8	6.4	10.5
5 ...	3.9	2.8	6.0	5.9	6.6	11.9
6 ...	3.5	3.0	6.1	5.6	6.5	11.8
7 ...	2.8	1.8	5.5	5.9	4.5	11.4
8 ...	2.6	1.9	5.4	6.0	4.5	11.4
9 ...	2.4	1.8	5.3	6.8	4.1	12.0
10 ...	2.5	1.8	5.3	6.4	4.3	11.6
Average ...	3.3	2.3	5.7	5.6	5.6	11.3

Notice—

1. the excessive amount of time devoted to grammar in the mother-tongue.

2. that the periods allotted to the mother-tongue are not very inadequate.

It is to be remembered that history and geography are taught through the medium of the vernacular, and are (or should be) a training in the vernacular, and that a foreign language would, under any circumstances (I mean even in France, where there is no question of neglect of the mother-tongue), be given more class-time than the mother-tongue, because it is more difficult to

the child; he can do less by himself, and more help is needed from teacher. Considering this, I do not call this allotment so very inadequate; certainly not in the lower classes.

Look at it in another way—how much time can you, as a teacher, actually spend on the mother-tongue? How much time do you *want*? Personally, I consider three class periods and three preparations to be sufficient for a middle class; four class periods and three preparations are ample. It will be seen that the schools have this already. The cause, then, is not insufficient time.

2. INSUFFICIENT EMPHASIS

A second suggestion is that the boys and the teachers do not devote their full energies to the study of the vernacular, for the reason that the Calcutta Matriculation examination does not take much stock of the subject.

The marks awarded are 100, or one-seventh of the total—not a bad proportion, though it might be larger. Moreover, a boy has to pass in his vernacular as a single subject, and the percentage is 36, the same as in English.¹ We are left with the alternative that the marking may be lenient in that subject. Enquiry reveals the fact that the percentage of passes is indeed very high.

¹ English Paper I, 40 per cent., Paper II, 32 per cent.

I am rather inclined, therefore, to the view that the examination is indeed largely to blame; certainly the standard cannot be high enough, or we should not find graduates coming to the Training College at Dacca who make elementary mistakes in their mother-tongue and are singularly incapable of using their own language as a means of self-expression.

3. WRONG METHODS OF EXAMINATION

But still more is the examination to blame, in that it does not encourage a boy to study his mother-tongue in the right way.

Let us consider in what way he ought to study. What things ought a boy to be able to do as a result of a proper training in his mother-tongue?

A. 1. In the first place he ought to be able to think clearly, and be able to convey his thoughts clearly and accurately to others.

2. He ought to be able to read effectively so as to gather the thoughts of the greatest thinkers of his nation with reasonable ease and rapidity.

B. 1. He ought to be able to use the language artistically as a means of expression of himself.

2. He ought to be able to read and appreciate the best poetry and prose literature of his language as expressions of the greatest selves among his people.

In the light of this we shall expect the examination to consist of :

A. 1. An essay on a subject involving reasoning.

2. (a) Questions testing whether the candidate has read a wide course in the literature of his language.

(b) Also an unseen test of reading ability.

B. 1. An essay of an artistic nature—a description of scenery, or some theme which will give scope to the imagination.

2. (a) Questions testing the appreciation of a wide course of reading, both of poetry and of prose literature.

(b) Also an unseen passage of poetry or rhetoric for comment, scansion or elucidation.

The greatest part of the marks should necessarily go to the essay questions, since expression is by far the harder task. Thus we might give 30 marks each to A 1 and to B 1, the two essay questions (60 in all); and 20 each to A 2 and B 2, the reading questions.

Let us see in what the Calcutta examination actually consists :

Item 1. Questions on the subject matter and language of prescribed texts. This sounds satisfactory until we come to look into the texts. The texts cover a total of 180 pages of prose—that

is, four to five hours' reading—for two years' work. Also 70 pages to poetry. And this carries 40 out of one hundred marks. So that if a boy, having no real command over the language, 'mugs' up his textbooks sufficiently (and, indeed, he has time to learn so paltry a quantity, and its crib also, by heart), he will need only ten marks on all the rest of the paper. He might, with luck, pass on his textbooks alone.

Item 2. An unseen passage to be summarized or amplified—15 marks. To write in a hundred words the substance of a passage 800 words in length is an excellent test of reading ability, a test of power to tear the heart out of a passage. But when we look at the examination paper, we find that four passages, each of five lines, are set to be 'explained in reference to context.' This is rather a test of knowledge of the set books; fifteen more marks added to the set books, fifty-five in all. There is no test of reading ability as such.

Item 3. Translation from English into the vernacular—15 marks. We said that one hundred marks were allotted to the vernacular: we were wrong; it should have been 85; for this is obviously as much a test of ability to understand English as of ability to express oneself in the vernacular.

Item 4. An essay, carrying the miserable figure

of 20 marks, one-fifth of the total for the most important test of all—whether a boy can really think and express his thoughts in his mother-tongue. But no; again we are wrong: he does not have to think; for the regulations add '*headings being given.*' And, lastly, *Item 5, Questions on Composition.*

The effect of this paper in the classroom is to produce most minute and detailed study of a very small textbook, also some practice in that most useless of all exercises, paraphrase; a very inadequate amount of work in essay writing; and some translation and grammar. But it will produce no wide reading and appreciation of vernacular literature, no original composition, and no attempt to use the mother-tongue as a means of expression of the self, as a body for boyhood's thoughts and imagination.

In a healthy educational system the examination always tends to set the pace to the teaching. The examiners are selected from among the best teachers, men who are striking out new lines and endeavouring to realize ideals. They know what they are aiming at, and they know what can, under the best conditions, be hoped for. Their question papers, therefore, act as goals to the teachers; they set a standard always just a little ahead of actual attainment.

But, as soon as one begins to lower the standard, the opposite tendency takes place. Instead of considering what they want, the examiners begin to consider what they are likely to get; and they set the examination to suit the teacher.

The examination which we have just been describing is indeed the sort of examination which would ideally suit the sort of teacher which we have now.

Let us consider what sort of teacher we really need.

The Vernacular Teacher : Difficulty of Obtaining

There used to be in schools in England an assumption that anyone could teach English. When replying 'promptly yet carefully' to the typewritten communications of Messrs. Gabbitas, Thring & Co., candidates for employment would add 'English and Scripture' to the list of their subjects almost as a matter of routine—'Latin French, English and Scripture'; 'Science, Mathematics, English and Scripture.' And headmasters, in making up their time-tables, would first set everybody to teach the subjects which they really could teach, and then divide up English and Scripture impartially among the whole staff.

Perhaps the reason why everyone was considered able to teach the mother-tongue was that

no one had very clear ideas as to how English should be taught.

Things are, no doubt, very much changed now.

Now the teacher of a foreign language has to convey certain definite knowledge and skill. He has to teach the vocabulary of the foreign language and the skill of using it. No special or abnormal artistic aptitude or temperament is required in the teacher of a foreign language. And so with mathematics and geography. I do not suggest that some teachers of these subjects are not better than others; but one *can* train any man who has the necessary knowledge, and the ability to control a class, to become a satisfactory teacher of these subjects. But in the mother-tongue the case is different. Of any hundred intelligent and well educated persons who know their mother-tongue thoroughly, there are probably not ten who, with the best training in the world, would make really good teachers of it. The task of a teacher of the mother-tongue is not so much to convey certain knowledge, as to convey a certain attitude, to create literary appreciation, a sense of artistry in expression, and that literary conscience which cannot bear to set down a thing on paper which is not clear and correct. A teacher cannot convey love of literature to others unless he actually loves literature

himself; he cannot teach boys the impulse and the craftsmanship of self-expression unless he is an author himself; nor can he make their consciences sensitive to the beauty of accuracy if his own is made callous by years of inexactitude.

Like poets, teachers of the mother-tongue are born, not made.

There is another cause which makes good teachers of the vernacular most difficult to obtain. English, Science, Geography and such subjects are, in a sense, 'new subjects.' There is no deep-rooted traditional teaching-method attached to them. But in the case of the mother-tongue we have, in India, centuries of tradition, the tradition of a system primarily intended for individual instruction, and that under conditions very widely different from those of the ordinary school. The pundit—or *tol*—system is a very good system when :

1. The number of pupils is small, and instruction extends throughout the whole day.

2. The pupils are resident with the teacher, and so are attached to the teacher by a closer bond than is possible in a day-school.

3. Where there is an element of religious discipleship.

But to transplant this system into an ordinary day-school is fatal. One might just as well

transplant the Oxford tutorial system into a public elementary school. The pundit's method of teaching, going round the boys one by one, invites disorder in the ordinary school classroom; he has no disciplinary control; and, so far from regarding him with the veneration of a *guru*, the boys pay him less respect than they give to other teachers.

Moreover, the pundit is imbued with the Sanscritic tradition of the tols. If the attempt to graft Latin grammar and classical methods of textbook-study has done incalculable harm to the teaching of English in England, how much more harm has the Sanscritic tradition done to the teaching of the Indian vernaculars—and is still doing. An Indian vernacular is not Sanscrit. It is an essentially live language. The greatest part of its grammar comes spontaneously to the children as an automatic machinery of their daily expression. It contains a large printed literature, from which the boy has to cull the scattered honey, not a limited and highly compressed literature of which each mouthful must be chewed forty times before swallowing.

The Work of the Teacher of the Mother-tongue

Doubtless most people have at one time or other played that amusing game, 'If I were King.'

If you were Director of Public Instruction and you were asked to fix a scale of salaries for teachers, how would you do it? This presumably would be your answer :

You would first try to visualize what is the work which each kind of teacher will have to do—the Mathematics, Geography, English teacher, each dealing with a fairly definite subject on comparatively straightforward, and to a large extent routine, lines. And the vernacular teacher : here we have something different. Let us, therefore, go into the class of a good teacher of the mother-tongue and see what he is doing.

The first period is his Library period. The boys are sitting round reading. Each in turn comes up, and the teacher, by means of a few skilfully directed questions, discovers whether the boy is really appreciating and understanding the book which he has chosen. Some boys have finished their books ; they approach the teacher with their 'Records of Reading,' containing a list of books read and a short account or appreciation of each. The teacher notes each boy's progress ; he also assists in the selection of new books. It takes a good judge both of books and of boys to give each one just the book which he will appreciate. It takes wide knowledge of the literature of the language to see that the library contains

just the right books, and to know each book so well as to judge by a few probing questions the exact extent of a child's real understanding.

The second period is the Essay period. The teacher hands back the essays which were given him for correction a few days ago. Most of them are upon a subject of a rather vague and tantalizing nature, calculated to bring out the latent genius or imagination of each boy in each boy's own way. *'It was seven o'clock in the morning when my boat grated upon the sand of an unknown island. I leapt out upon the beach and proceeded to explore.—Continue this with suitable adventures.'*

The teacher has made a little criticism of each boy's production and suggestions for improving it in the rewriting which will be done this week. He is very severe to one boy whose spelling is not faultless. 'Haven't you got a dictionary? You have! Then why don't you use it? If you can't show me up properly spelt work, I won't correct your essays.' It is a pleasure and a privilege to write these essays for a sympathetic and skilful critic, a privilege which the boy will be sorry to forego.

Some few boys have already begun to develop originality. These have brought compositions on subjects selected by themselves; some of them are of considerable length, but all are in beauti-

ful handwriting, for the teacher refuses to read bad handwriting.

The next period which we visit is the 'Reading Period.' The teacher reads aloud to the class several poems selected from among his own favourites. His reading is skilled, yet unpretentious, conveying to the full his own appreciation. The class selects the poem which it likes best with a view to learning how to read it aloud, in order to enhance their appreciation. Sometimes this period is used for a symposium, each boy selecting and reading a passage which appeals to him. Sometimes it is used for mass recitation. (Very inspiring effects can be produced by choral or antiphonic recitation of such passages in English as 'The heavens declare the glory of God,' 'We take the Golden Road,' and others; and there are passages in most Indian vernaculars which invite similar treatment.)

The fourth period in the week is the 'Correction Period.' When we enter the classroom there is a fascinating lecture in progress on 'The Use and Misuse of Inverted Commas,' a lecture rather reminiscent of John o' London or the Brothers Fowler, interspersed with problems for the boys to solve. The class then proceeds to a free discussion of the precise meaning of certain words used carelessly in a recent essay. A few common

mistakes are then mentioned by the teacher ; and, finally, to fill up the last few minutes, all the boys take out some uncorrected proofs (supplied by courtesy of a local printer) and proceed to correct them. We enquire the reason. 'It gives them the Reader's eye,' replies the teacher. 'A mistake ought to leap out at them ; it should look like a drop of blood on a white cloth. People would never allow so many errors to stand in their writings if their eyes were as sensitive to them as are the eyes of a printer's reader.'

It is clear that, in order to carry out such teaching, a man of unusual qualifications is required.

The Pay of the Teacher of the Mother-tongue

You, self-appointed Director of Public Instruction, will then go on to consider the matter further on these lines :

That the Law of Supply and Demand applies to teachers just as much as it does to jute and to India-rubber ; for what is rare and difficult to obtain one has to pay more. English-knowing graduates are as common as blackberries, and, if a man knows English properly, it is not difficult, by means of a sound ordinary training, to make him into an effective teacher of English. Hence the price offered here does not need to be very high. On the other hand, men of literary taste and

capacity in the mother-tongue are not common ; still less are those who possess also the patience and personality to teach and control children. Hence for such men we must pay more—especially in view of the fact that efficiency of teaching in the mother-tongue is much more essential to the spiritual well-being of the nation than is instruction in English. And, since we have here the special difficulty of contending against a deeply rooted tradition of wrong teaching-method, it is very necessary that the training of these men should be of an exceptionally efficient nature.

This certainly seems very sound. Mark, then, what has actually been done. The vernacular teachers are recruited on a *lower* scale of pay. Not only that, but they are given a definitely *inferior* training. They are just pundits ; they are trained by pundits ; and, in consequence, the methods of teaching in the schools are steeped in the classical pundit tradition—grammar, minute study of a minutely small textbook, meanings of words, verbal criticism, and so on. And the the Matriculation examination faithfully reflects the practice of the classroom.

Summary

I have emphasized how important are words in our processes of thought and in the intellectual

development of the child. I have shown the function of language in the sublimation of man's crude impulses and in his moral and æsthetic development. I have drawn a picture, a picture which the reader could not fail to recognize as in some measure true to this country, of the youth of a nation retarded in intellectual and emotional development by linguistic inefficiency. No doubt some—perhaps most—of my readers have been saying to themselves, 'Yes, it's all this English; it's all because the poor boys are made to learn two languages. If it had not been for English education . . .' and so on.

Boys in other countries learn a second language, and a third also, and spend as much time on them as Indian boys do.

It is not English teaching, good or bad, too much or too little, that is doing all this harm to your children. It is cheap teachers of the mother-tongue frittering away golden hours of youthful energy upon compound words and grammatical discriminations; teaching boys to loathe the sight of their own heritage of literature by chewing petty morsels of it into a sour chyme; binding down childish dreams and aspirations under 'set headings'; under-paid, under-qualified, helpless baits in their bear-garden of a classroom.

'If I were King,' and I thought that the

abolition of all English teaching would make the teaching of the mother-tongue any better, I would abolish it tomorrow—for souls are worth more than knowledge. But it would not. It is nothing to do with English. It is these pundits, and the misplaced economy that has brought them into our schools.

CHAPTER III

A LANGUAGE POLICY

WE very commonly hear people putting the blame for the present position of education in India upon Macaulay and the Anglicist party of the Committee of Education of the East India Company. 'If,' they say, 'a policy of vernacular education had been adopted then, we might have unilingual provinces in India today. Some common language—either English or Urdu—might be necessary for Imperial Government and inter-provincial communication, but this would not affect the mass of the people; we should not see all these thousands of middle-class boys vainly struggling with two languages at the cost of all the real things of education.'

It is easy in history to be wise after the event. If Macaulay and the Committee made a mistake, we may, by putting ourselves back into their place, and reviewing the matter in the light of our later knowledge, be able to discover where they erred.

Let us make the experiment.

The Problem

Suppose yourself, possessed of a modern culture, and realizing the tremendous national importance of such culture, charged with the responsibility of governing a country largely destitute of such culture. The language of that country is in the wildest confusion. There is a literary language containing a noble literature of poetry, mythology, and religion; but that language is widely divorced from the common language of the people, and the literature has, in a large measure, been lost. Of science, of knowledge of the modern world, there is hardly a trace; and the language in its present condition is not capable of conveying such ideas.

Alternative Solutions

1. TO SUBSTITUTE A FOREIGN LANGUAGE

Let us consider the alternatives.

One alternative is to do nothing; to say, 'The less they know, the easier they will be to manage.' But let us suppose that you are well-meaning and want to do what will be ultimately best for this people.

The first alternative is to throw over the language of the country and substitute for it your own language.

A little consideration will soon convince you that this would be impossible.

Language learning is not an easy task. It is one which, under the most favourable conditions, can be undertaken with any hope of success only by those of at least average, or even slightly above average, intelligence. To change the language of a whole people would involve teaching the new language to all grades of intelligence, and in schools of all degrees of efficiency and inefficiency. There is a second reason why such a policy would be impossible, and that is that the language would not 'fit' the lives of the people. So long as the people were discussing educational, or scientific, or commercial matters, they would be able to express themselves very well in the other language—far better indeed than in their own. But so soon as it came to a discussion of the things of the home and intimate things of the self, the foreign words would be misleading and inadequate, unless their meaning were warped out of all possibility of recognition by a native of the foreign language. For example, what English word describes a *sari*? If you say 'dress,' can you say that she 'wound' her dress about her? Consider the ordinary furniture of the home—*almirah*, *piri*, *taktaposh*; translate these into 'cupboard,' 'stool,' 'bedstead,' and

the room looks like an Indian 'interior' produced at Hollywood. Translate an Indian love-declaration into English and how peculiar it sounds—'She has cow's eyes, and a straw-coloured complexion.'

What would actually happen is obvious, if such an attempt were made upon the language of a whole people. The people would develop a 'bêche-de-mer,' a pidgin English, in which English words would be used with meanings that do not belong to them, and native words would also be freely interspersed. It would be a hybrid, a mule language, sterile of literature, ineffective even for the purpose aimed at, since it would be unintelligible to the foreigner, and the foreign literature would be unintelligible to those who spoke the hybrid language.

2. TO RESUSCITATE THE VERNACULAR

The second alternative is to resuscitate the vernacular and to use that as the language of education.

But this proposal begs the question. The question was, 'How are you to put this people in touch with the culture of the outside world?' We have already said that the literature of the people was not, at that time, in touch with the culture of the outside world. It would be possible, no doubt, to improve the teaching of the

vernacular in the schools, but that would not set the people in contact with the larger civilization of the world beyond their borders.

To this, of course, you will reply that it would be possible to make translations. But who is going to make the translations? Answer—‘Why, either outsiders who know the native language, or natives who understand the foreign language.’ The first can be but a very small class; and translations made by a foreigner are in most cases apt rather to contaminate the native language with foreignisms, than to enrich it. As regards the second scheme, natives who know the foreign language—there are none! We have not yet decided to give any instruction in the foreign language. On the contrary, we are just making up our minds to select the vernacular as the language of *all* instruction.

‘But,’ replies our objector, ‘there is sure to be some group of better-class people who will read and study the foreign language.’

Well, we had not considered giving any encouragement to this. But, if it is considered desirable, we might do something. Apparently it is considered desirable, since otherwise there will indeed be no liaison officers to keep our vernacular education in touch with the outside world (which is one of the chief purposes of these reforms).

Our main educational programme is, therefore, a purely vernacular system. But we have agreed that it is desirable to have a small number of schools intended for better-class people (or the more gifted children of all classes), in which the foreign language will be taught.

Then why did not the East India Company do this ?

That is precisely what they did — or, rather, what they intended to do.

The Causes of Failure

1. MAKING HIGHER EDUCATION TOO POPULAR

Let us again be wise after the event, and discover why they did not succeed in their plan.

We have decided to establish a popular vernacular system of education, and also a small select system for a limited class only, with the idea that these latter will create a vernacular literature in touch with outside ideas.

It is evident that this 'Select Education' is going to be extremely important. The boys who receive it will, when they grow up, tend to become the leaders of public opinion, the writers of books, the editors of newspapers. More than that, it is probable that, for most of the important administrative offices of Government, selection will tend to be made from their ranks.

Now, the country is about to enter upon a new phase of history, and it is of supreme importance that the leaders should be as well equipped for their responsibilities as possible. We must, therefore, make these Schools of Leadership the best possible. We must give these boys not only a new and additional language, but also a new outlook on life, a sense of responsibility to the future, and an ideal of public service. This can hardly be done in a short course starting at an age when the child is already very largely formed. It must begin in those early stages in which the foundations of character are laid down. A responsible servant of the people has to learn to set the goal above the self, to be unbending in principal yet respectful of other people's feelings, to be loyal to the leader of his party, to be honest above all suspicion, to be a good loser—and all that sort of thing.

Now that is the sort of thing which a boy learns in a boarding school, and I very much doubt whether it can be so well taught anywhere else. There is no place like a good boarding school for teaching boys how to live with other people, and for turning out leaders of men. Hence our select schools will be rather expensive (but with ample scholarships for the promising youth); they will take the boys early; and they will be boarding

schools. Admission to them will not be a right which people can demand—or even buy. It must be a privilege which can be conferred; and, if a boy does not show promise of feeling the responsibilities of the privilege of being trained to serve his country, it is a privilege which can, without reason stated, be withdrawn.

I have accidentally described, I believe with fair accuracy, the Achimota College, which is the keystone of a new beginning in the education of Western Africa. *They* have been wise after the event.

The mistake which our early educationists made in this country is a mistake which is, to my mind, still common in many countries even today—namely, the mistake of allowing people to regard higher education as a right, as something which they can demand. Worse than that, they allowed the public to look upon it as a means of money-getting, a sort of cheap, or even free, ticket in a sweepstake; whereas higher education should involve responsibilities in public service afterwards such as make it by no means a well-paying proposition. There is a great deal to be said for the old monastic system, when higher education was in the hands of the monasteries, and those who received it became monks, celibates, wedded to the service of mankind—a noble ideal, even if it was seldom realized.

To a small extent things are moving back to that old position in England since the War. Public service and the professions do not pay as well as they did ; manufacture and commerce are no longer considered ungentlemanly occupations, and the boy who chooses a professional or public career does so 'because he prefers that sort of work' or 'because money isn't everything'—some reason that has the germ of altruism in it.

I will not go into the sordid details of how in India the noble ideal of Schools of Service became degraded into a squalid system of educational grab. They are given elsewhere.¹ It was an outcome of the mistaken idea of 'popular' government of those days.

Is it too late to remedy it ? Have we perhaps so many political leaders trained and wedded to the service of country, setting the goal above the self, good losers, loyal to their leaders ? We have heard much of the faults of the Public School system in England ; we must not overlook their virtues, what they have done for the political life of England. That is where the great leaders and the loyalty of their parties were, and are, made. The Mother of Parliaments was kicked as a fag and respected as prefect at a Public School.

¹ *Bilingualism*, pp. 28-31.

There is no Public School system in India.¹ There is no place where a Calcutta millionaire can pay more than two rupees a month for the education of his son to train him in ideals of service. Popular government has not developed healthily in this country, and, if the blame lies with education, is it not the education of the elected, more than that of the electors, that is to blame?

2. A WRONG POLICY IN LANGUAGE-TEACHING

Let us suppose that we have (as Directors of the East India Company) successfully realized these Schools of Service on the lines originally intended, and let us pass on to consider what is to be our system of language-teaching in them.

We want the men who are trained in these schools to be continuously in touch with the thought of the world and continually enriching the literature of their mother-tongue by the transfusion of such thought. We want them to take in on the one side and give out on the other, to get ideas from reading English, and to give them out in the vernacular. It is evident, therefore, that we must lay very great stress on vernacular composition. Accurate self-expression in the mother-tongue must be as important in these schools as it is in a

¹ Perhaps Bolpur is the exception.

French *lycée*. We must also lay great stress on the reading of English, not in the form of chewing a textbook, but rather of widespread browsing in a library and among current literature. And it is most important that the medium of instruction and of examination should *not* be English. We do not want them to write English well; we do not really want them to write it at all if it can be avoided. That is the great danger, that they may read in English, and then talk and write about it in English, so that, instead of becoming interpreters to the masses, they will become a little narrow clique, talking and writing in a language of their own.

Now the members of the Education Committee of the Company were not experts in language-teaching. Perhaps they, and language-teachers in later days in this country generally, were subconsciously influenced by methods of language-teaching in Europe, where the boy learns French in order to converse with his neighbour across the Channel; and Latin teaching is much affected by the tradition of days when Latin was a living means of learned intercourse. The net result was that the English teaching which was given then, and is given now, enables the boy to write English and, in some measure, to speak it; but it does not enable him to read it. In fact, it is the

precise and complete antithesis of the policy which, in our opinion, should have been followed. And, lastly, the medium of instruction is English!

To have realized our policy even at that date would have been very difficult. There would always have been a danger that they might write in English instead of in the vernacular. It is impossible to go back and start again; but we may still seek to attain our purpose in a slightly modified form. We may at least endeavour to ensure that every boy who begins to learn English shall, first and foremost and above all, learn to *read* the language; and if he can later go on to speak and write it, let him do so.

There is no question of a distinct dichotomy here—two classes of people in the country, the one able to read English only and the other able also to write and speak, as Prof. Findlay has suggested in a review.¹ There will be no such sharp division, nor would it be possible to make one; it is merely a question of priority. (Remember that word, ‘priority.’) Instead of beginning with the speech (as most syllabuses do) and letting the reading follow on behind, you begin with the reading and let the speech follow on behind.

What do we mean by ‘behind’? What interval,

¹ *Modern Language*, April, 1928.

in time? I mean about half a year behind at the beginning, or perhaps, under certain circumstances, one year, or even more in the case of a class of 'backward' boys. This means that the boys would start learning to read from six months to a year before they start to learn to speak (in the sense of composing original sentences for themselves; they would, of course, do some reading aloud from the very beginning).

If the time is divided equally between reading and speech (or even divided with a considerable advantage to speech), the interval between the two capacities tends to become greater and greater, because it is very much easier to learn to read a language than it is to learn to speak and write it. That there should be such an interval is perfectly natural and quite as it should be; for even in our mother-tongue we can read far better than we write or speak. Look through a dictionary and see what a lot of words you understand which you never actually use in conversation or in writing.

The only reason why the Indian boy cannot read English is that he is never taught to read *at all*, and there is no test of reading—none at all—in his examination.

The Argument for Priority of Reading

1. THE CASE OF THE DULL BOY

Now this priority of reading has two great advantages.

We have to consider two cases : the case of the dull boy who discontinues his education somewhere before the end of the full course, and the case of the clever boy who will cover the whole course and eventually obtain a complete mastery of the language, reading and speaking.

It takes many years to learn to speak or write a language well ; and to speak it a little or badly is a comparatively useless accomplishment. Moreover, speaking a foreign language is also an accomplishment which is not much needed in those lower walks of life which the less gifted boy is fated to occupy. It is, lastly, an accomplishment in which a boy who has left school cannot improve himself, unless he has a private tutor. Whereas if reading is given priority, the dull boy, who leaves school even after only two years, can read sufficiently well when he leaves school to be able to read to himself afterwards, and so, without a private tutor, by his own unaided efforts, he can go on improving himself. And he has got at least something of that linguistic achievement which, in his walk of life, is of greatest use to him.

2. THE CASE OF THE CLEVER BOY

Consider now the case of the clever boy.

The thing that we notice about the 'clever boys' in this country is that, although they speak and write English with (in some cases) a wonderful command and wealth of vocabulary, yet they are most abominably inaccurate. One finds M.A.s pronouncing *cough* as 'cowf,' and their spelling and idiom and punctuation are dreadful.

There are two great principles in teaching, which we shall have occasion to discuss later on; one is the Prevention of Mistakes, and the other is the Limitation of Difficulties.

What is there to prevent a boy from making mistakes when he plunges straight off into the speaking of a foreign language? He has never heard the language spoken before; he has nothing to tell him whether the sentence, which he is about to utter, 'sounds funny.' Notice how the infant who is learning his mother-tongue copes with this difficulty. He hears the language spoken all around him. All day long it is dinned in his ears, and he understands quite a lot of what is said. But a merciful Providence prevents him from opening his mouth too soon. By the time he does speak, he has got quite a considerable acquaintance with the sound of the spoken language to guide him as to what is, and what is

not, correct. And so, throughout infancy the heard language runs ahead of the spoken, and serves as a guide and mentor of correctness.

If we were to follow this analogy, the teacher would talk and talk and talk to his class of beginners for six months or a year before he allowed them to venture on any spontaneous speech of their own. This procedure, indeed, is advocated by Mr. H. E. Palmer.¹ But, since the material of the teacher's discourses would need to be very carefully selected so as to be within the understanding of the class, he would not speak impromptu, but would probably prefer to read aloud from something composed in writing. Why not, then, let the class read it, and learn to read at the same time as they train their ears?

The second principle is 'Limitation of Difficulties'; that means, 'One difficulty at a time.' A boy beginning to speak a foreign language has to cope with pronunciation, accidence, syntax, idiom; and, in beginning to write, he has to cope with the formation of the letters and with spelling. If he reads and copies first, he has to cope only with pronunciation and letter-formation. In reading he has only to understand the idioms and grammar, a much easier task than combining them. Thus by giving priority to reading we

¹ *Scientific Study and Teaching of Languages*, pp. 66, 131.

reduce by three-quarters the beginner's difficulties; and thus we reduce also by three-quarters his liability to make mistakes. The foundation of the M.A.'s inaccuracy was laid in the lowest class. There he was taught to be inaccurate; he was put under circumstances in which he could not be otherwise than inaccurate. His mind was filled with fundamental inaccuracies—of grammar, of pronunciation, of spelling, of idiom. And he has never recovered.

This idea of Priority of Reading has been spoken of by some critics as if it were a strange and unheard-of thing. And yet the remarkable fact is that these very critics follow the principle every day of their lives. Let us consider, not the theoretical, but the actual, procedure of the Direct Method stalwart. He starts in the lowest class with conversation-lessons of the type 'Stand up,' 'Sit down,' 'Open the door,' 'Shut the window.' When that begins to pall, he begins to discuss the furniture of the room,—'It is a pen,' 'It is a pencil,' 'It is a desk,' and so on. When he has accumulated in this way a large collection of nouns, he ventures on a few adjectives of number and colour, and so on. Personally, I do not see any great objection to beginning the course in this way. Anyhow it only lasts for six months or so, if as long. (The only danger is the teacher may go on

too long and overdo this type of work—‘This is a window-sash,’ and ‘This is puce-coloured’—thus wasting the child’s time by teaching rare and comparatively useless words, even though their corresponding objects *are* in the room.) There is also the objection that this work, unless skilfully conducted, tends to keep the child to a very limited range of sentence forms—‘What is . . . ?’ And ‘It is . . . ’ and ‘This is . . . ’ It also tends to overpractise the present tense and the imperative. There is, lastly, a danger of mistakes, if the teacher is not well trained—and in this country we always have to assume that he is not. Unless the book is very carefully designed, it may leave some initiative to the teacher in making up questions and in determining the form of the answer, and then you hear the teacher saying, ‘What it is?’ and ‘You opened the window, is it not?’

Be this as it may, let us now see what happens after this stage, when the teacher has exhausted all the furniture of the room as well as his stock of pictures. He goes on to a reading-book. He has got to get on to a reading-book sooner or later for the sake of having something to talk about. And now, if he were really a strict Direct Methodite, he would give a conversation lesson introducing certain words and forms, and the boys would

subsequently read a story in which those words and forms occurred. But that is not the ordinary procedure, not even among the strictest Direct Methodites. In their higher classes they read a chapter of the book and *then* discuss it. And the reason is simply the problem of something to talk about. If you hold the conversation first, what is the conversation going to be about? Obviously the natural order is to read the chapter first, and then talk about the chapter.

Where, then, is the difference? The only difference that I can see is that the Direct Method boy is kept back in his reading to the pace at which he can learn to speak; and so, since the rate of learning to speak is very slow, he gets practically no reading practice at all. Whereas I like to see his reading go ahead as fast as it can in the fixed time given to it, and the speech follows after at whatever interval it may in the time given to it. If the interval between the two becomes so great as to be inconvenient to school organization, then a few periods can be transferred from reading to speaking until things are right again. Otherwise I leave the matter entirely to nature; it is *natural* for a boy to read better than he can speak; and he will speak all the better if this is so.

If we could ensure that every boy who begins

to study English in this country should at least attain some measure of English reading ability, I believe that we might fulfil, even at this late hour, the essentials of those early educational ambitions. We might produce an India able to read English widely and voraciously, and so able to keep in intimate touch, through that most widespread of all languages, with the thought of the whole world. Now, a very small percentage of those who start to learn English ever attain to the Graduate stage—or even the Intermediate—and the cause is not always lack of brains. We should, therefore, every year be accumulating a larger and larger number of intelligent people who could read English much better than they could write it, and would so tend to express the results of their reading in the vernacular. And, if the teaching of the vernacular were reformed in the lines which I have suggested, they *would* do so.

Here we have indeed just that process of filtration of which the Committee of Education so vainly dreamed.

CHAPTER IV

THE PSYCHOLOGY OF READING

TEACHING is an attempt to influence the child's future conduct ; it is an attempt to ensure that to a certain future situation he may respond in a certain way.

All teaching is based on the fundamental axiom, 'What a person does once, he tends to do again'; or 'The doing of a thing once produces one degree of probability that the person will, given the same circumstances, do that thing again ; and the doing of it x times produces x degrees of probability that he will do it again.'

Teaching, then, consists in :

1. A prediction that a certain situation is likely to arise in the child's future adult life, which will call for a certain correct response.

2. The reproduction of this situation in the school so that the child may repeatedly perform the correct response, thereby increasing the probability that he will so respond in the real future.

The Principle of Specific Practice

There are here two chances of error. In the first place, the school may incorrectly predict the nature of the future situation. Thus a child has to be taught to read; the school teaches him to read aloud, whereas the major part of his reading in after-life will be of the silent variety.¹

Secondly, the school may inadequately reproduce the future life-situation. Thus the arithmetic class omits to allow for the fact that many of our calculations in real life are done under circumstances of haste and distraction; also that life demands absolute correctness and gives no marks for 'right process but wrong answer.'

The Principle of Specific Practice lays down that the child's practice-actions in the school must faithfully reproduce the actions which he will have to perform in real life. A cent-per-cent reproduction will result in a cent-per-cent return in practice-effect. On the other hand, if the child does at school something that is not *quite* the same as he will have to do in real life, he will necessarily have wasted a portion of his energy in learning something which he does not want; and, moreover, he will have to make a certain further expenditure of energy in *un-learning*

¹ Note also calculation of compound interest correct to a half-penny, which is seldom done in real life.

the useless thing and learning something additional.

The epigrammatic form of this principle is 'Learn to swim by swimming.' So also must we 'learn to add by adding,' 'learn to read by reading.' And that swimming, adding, reading, must be as nearly as possible like the swimming, adding and reading of real life.

This principle must, however, be applied with discretion.

1. The school has to *render the practice circumstances safe*. Thus in the early stages it will give the boy a lifebelt when he is learning to swim.

2. The school has to *simplify the process so that only one new element may be presented at a time*. (Thus a boy usually masters the formation of the foreign letters before going on to write and compose simultaneously in a foreign language.)

3. In certain cases the adult procedure is a simplified version of a more complex procedure necessary in the elementary stages. (The young telegraphist reads letter by letter; the expert hears syllables or even words as units.) In such cases the school has to *analyse the process of growth*.

This Principle of Specific Practice is apt to lead to very wrong methods of teaching if these reservations are neglected. It is the third

reservation which is most commonly forgotten. We hear educationists and psychologists arguing that, because adults do a thing in a certain way without certain, *to them*, superfluous processes, the child should imitate that way from the first. In a great many cases this is true, but in some cases it is not. In some cases these superfluous processes are a necessary stage of growth.

The Process of Reading

We are to apply these principles to teaching the reading of a foreign language.

Let us first study the adult action which we are required to reproduce in the form of practice in the school.

We notice that our adult is reading silently; even his lips do not move, save when he comes to some foreign word or long proper name, or difficult passage. If we watch his eyes carefully we observe that they progress forward in a succession of jerks, with not more than three or four stopping places in an average-length line. His eyes stop short of the end of the line and begin inside the beginning. He seems to have no consciousness of individual words; indeed, if he is asked to reproduce the substance of the book, his expression of it differs widely from the original. At times his eyes seem to sweep diagonally across

the page from corner to corner, so that it is quite evident that he cannot be reading every word, or even every line.

This is the process which we hope ultimately to produce in the child. We have yet to consider how far we shall reproduce all these actual details in the early stages.

‘Job Analysis’

We have seen the complete process; let us proceed to analyse it and discover of what elements it consists.

1. In its simplest form, reading consists in seeing printed words and interpreting them into actual sounds, or into auditory images (or into kinæsthetic images of the actions of speech-production).

2. It consists also in associating ideas with these sounds (or images). Occasionally, but rarely, the idea is associated directly with the visual perception of the word.

3. There is also a process of synthesizing the unit ideas so that they form propositions.

4. In the case of the practised reader there is a process of grouping; words are not read individually, but in ‘bunches.’

5. Again, in the still more practised reader, there is a process of selection, so that only certain

groups of words are consciously read, and the reader snatches the essentials from the page without conscious perception of the remainder.

Vocalization in Reading

Let us consider the first two points, the interpreting of printed words into sounds, sound-images or kinæsthetic images, and the association of ideas with them.

Since the adult's reading is silent, should we in the earliest stages make the child's reading silent also?

A little thought will make it clear that we should be wrong in so doing, and especially so in the case of a foreign language. For the adult's reading is not really silent. There are speech images passing through his mind all the time. These speech images are the residue left after the repression of an originally vigorous accompaniment of speech.

The adult's silence is not an absence of speech; it is a repression of speech. We should, therefore, follow the natural process which has been followed by the adult—that is, use vocalization so long as it is a help, and encourage it to die away of itself so soon as it becomes a hindrance. Moreover, we may make the child feel it a hindrance by encouraging him to read always at the highest speed of

which he is capable. As soon as he can read at more than 350 words a minute he will spontaneously abandon vocalization.

The great danger of allowing vocalization in the early stages is the danger of a short circuit from visual perception of the word to vocalization, without the evocation of any corresponding idea. Such a condition is found in certain types of aphasia, as, for example, in the case reported by Dejerine and Serieux.¹ It is very common in Bengali primary schools in the mother-tongue, and is produced by two causes: unnecessary and excessive use of reading aloud, due to badly designed lesson-forms; and, in a larger degree, it is caused by defective construction of reading-books. Most reading primers are constructed on a phonetic system. A certain sound, e.g. *æt*, is introduced and illustrated. The author, in his effort to bring in as many monosyllabic instances of this sound as possible (*at, cat, bat, mat*) is hampered in expression of meaning. Moreover, this particular principle of selection of words tends naturally to produce a very ill-assorted vocabulary, which still further hampers the author. The result is that a large proportion of the sentences are meaningless, and merely provide practice in the conversion of print into sounds.

¹ Head, I, p. 113.

Such authors forget that, if you practise a child over a long period in interpreting print into mere sounds, he naturally forms a habit of so doing.

It follows that in any reading book, whether in the mother-tongue or in a foreign language, all the practice sentences must contain some reasonable meaning, and the vocabulary must be so selected as to render this possible. But this is not enough; we must *make* the child think of the meaning. Pictures encourage this. But force is needed; we must, therefore, have a large proportion of exercises which demand some response on the part of the child.

Synthesis

The third process noted in the adult's reading was synthesis of unit ideas into propositions.

The transition from word-recognition to word-synthesis is a very clearly marked stage. For a time all goes well, the child reads C A T S, 'cats'; E A T, 'eat'; M I C E, 'mice'; he sees the three words—but he is unable to synthesize them to form the unit proposition that 'Cats eat mice.' This is a characteristic stage of children learning to read the mother-tongue. But we find it also in the case of Indian boys learning to read English.¹ This may be abnormal; for, if a child has learnt

¹ *Bilingualism*, p. 287.

to synthesize in the reading of the mother-tongue, we should expect an easy 'transference of training' to a foreign language.

It is, however, comparatively easy to lead a child past this plateau. The main obstacle to synthesis is slowness. The child reads 'Cats' (*pause*) 'eat' (*pause*) 'mice'—and naturally the words stand out separately. But if he is made to say these three words quickly—and again more quickly—they coalesce and he realizes their propositional nature. Instead, therefore, of spelling out an unending series of new words, the child should be kept within a very limited vocabulary so that he may meet the same old words again and again. He then begins to know these words by their general shape and to recognize them instantaneously. This increases the speed of reading and so encourages synthesis. If certain stereotyped sentence-forms be frequently repeated, e.g. 'Is this my hat?' 'Is this my eye?' 'Is this my nose?' 'Is this my arm?' etc., these tend to be recognized as single units, and so the child begins to acquire the fourth function, or element, of reading, 'Grouping of words.'

Are Words the Unit of Language?

At this point we encounter an excellent instance

of the misapplication of the Principle of Specific Practice.

The argument runs as follows :

We do not speak in words. There is no actual separation in time between the words of a spoken sentence. Moreover, the sentence shapes itself in the mind as a whole. Words have no significance outside their sentence. It follows, therefore, that we should not teach the child to read word by word. He should be introduced to whole sentences and should learn to read them as single units.

It is certainly true that some words have practically no significance apart from a context, e.g. 'There' in the phrase 'There is.' On the other hand, all objective nouns, all verbs of action, all adjectives of quality, have meanings which are quite independent of context. Dog, Jump, Red—these are surely unit ideas.

Nor is it true to say that we talk entirely in ready-made sentences. Our talk is rather like a system of blank cheques, '*Pay to the order of . . . the sum of . . .*' We have a number of blank sentence-forms into which we fit words which suit the particular occasion. The individual's characteristic style of writing and speaking is largely a matter of his particular repertoire of sentence-forms, and his choice of favourites. For example, I am very fond of the form, 'It follows from this that . . .' and 'It is therefore obvious

that . . .’—whereas other writers, in the same context, might prefer to say, ‘We may deduce therefore. . .’ or ‘You may easily perceive that . . .’

The beginner has few forms. Notice the monotony of style in a foreigner and in a young child. They have only one way of saying each thing, and if they get on to a patch of similar ideas, they cannot help repeating themselves. Instead of ‘Please give me . . .’ ‘Kindly give me . . .’ ‘Might I have . . .?’ ‘May I trouble you for . . .?’ it is ‘Please give me . . .’ ‘Please give me . . .’ ‘Please give me . . .’

These sentence-forms are built up of words like any other sentence; but the words, from continual association, have got stuck together. This is a typical case of ‘economy of will’ by integration of actions, such as is found in all matters of skill and habit. The youngster requires a separate thought for every garment he takes off; the adult finds that he has undressed and got into bed when he went upstairs intending only to change his coat and waistcoat.

You cannot produce such integration by starting with it. All that you can do is to encourage the automatization of the elementary skills by such methods as have been described above. The essence is judicious insistence on speed.

Skimming

The last item which we noticed in the reading of the adult was his snatching of the essentials from a page without, apparently, reading all the words or even lines of print.

This art of snatching the essential elements out of a page, otherwise called 'skimming,' is the highest stage of reading. It is possible only when the lower elements of word-interpretation have become automatic. The process of reading goes on subconsciously, while the conscious mind is fixed in an expectant attitude, like an impatient business man listening to his clerk reading aloud. 'Yes, yes, I know that; go on further down: on again. Ah! stop! I want that; read that clearly. Now go on three lines lower down . . .' and so on. The clerk is the subconscious mind of the highly practised reader; the business man is the conscious mind.

Notice the forward urge, the attitude of expectant searching which is characteristic of this form of reading. We can hardly give practice in skimming in the early stages, for that would be teaching the child to run before he can walk. We can, however, give encouragement to the child to develop this skill at as early a stage as possible; and we can do something else—we can develop the attitude which is the essence of this form of reading.

That characteristic Expectant Attitude is produced by the use of 'Before Questions'—that is, questions supplied to the child before he reads the passage. Thus he reads with a definite purpose, knowing what to look for.

Now before-question reading is much easier than after-question reading. After-question reading is essentially the same process, but the boy has to formulate the questions for himself. Instead of saying, 'This is what I want to find,' he has to say, 'Now what am I trying to find? I think the question now is—*so and so.*'

Hence the easier, before-question, reading is to be used in the reading-book which introduces new words. New words are a hindrance to the full use of skimming, for if the boy skims at full rate he will tend to miss out the new words and try to get on without them; and this, of course, we cannot allow. In the reading-book all that we can do is to encourage a forward-looking attitude. We must also provide a supplementary book in which there are no new words, a book which the boy can read as fast as he can. This book is easier, since it contains no new words; we may, therefore, here set the harder task of after-questions.

Idea-Density in relation to Skimming

We here reach an interesting point of technique

in the construction of reading matter used in teaching the child to read selectively. All skimming presupposes that the substance is 'written up' to some extent; one cannot skim a synopsis.

Suppose that the plot of an article or story, consisting of 15 essential ideas, written at ideal length makes an article of about 5,000 words, and that, written as the shortest possible synopsis, the length is 450 words.

An intelligent adult will take ten minutes to read this 5,000-word article or story. A twelve-year-old will take twenty minutes; a ten-year-old will take sixty minutes; an eight-year-old will take one hundred minutes. Now, if you were reading aloud in the nursery and you took four times the ordinary time to get through a fairy tale, the children would not enjoy your reading very much. For the precisely same reason the young child does not enjoy the stories in most of the elementary reading books. They are to him (though not to the ordinary adult) far too long. The amount of 'writing up' of a story ought to vary with the reading-rate of the consumer. The correct length for a story in a reading-book may therefore be discovered by the factor:

$$\text{Normal length} \times \frac{\text{Child's reading rate}}{\text{Adult reading rate}}$$

Summary

We have outlined the main stages in the development of reading ability :

1. Word recognition,
2. Word interpretation,
3. Synthesis,
4. Grouping,
5. Skimming,

and also Repression of Speech.

We have indicated broadly how these skills are developed :

No. 3, Synthesis, by means of rapid reading within a limited vocabulary.

No. 4, Grouping, by repetition of sentence-forms.

No. 5, Skimming, by the use of Before-questions.

Lastly, Repression of Speech by :

(a) (in the early stage)—vocalization, safeguarded by pictures and response-exercises against the sight-speech short-circuit.

(b) attenuation and repression of speech by insistence on speed.

Having now discussed the broad outlines, we will deal with the practical technique.

CHAPTER V

THE TEACHING OF READING

A CHILD learns to read by reading.

It follows that the part of the teacher is to intervene as little as possible between the child and his book. The main process of instruction is carried out by the book.

We have thus two problems to discuss :

1. The construction of a book such that by merely reading it the child will learn to read the foreign language ; *and*

2. The evolution of a form of procedure (a 'lesson-form') such that the teacher will be able effectively to direct and control the work of the class with the minimum loss of reading-time on the part of the children.

The Construction of Reading-books

Learning to read a language is largely a matter of acquiring a reading vocabulary.

When we learn to use a new word in our speech, we bring it in again and again into our conversation until it becomes familiar. In learn-

ing a new reading-word the process is not quite the same. We are not required to initiate the word. We do not require the bond Idea-to-Word. The word is presented to us; we require the bond Word-to-Idea. Hence what we need is that we should meet the word again and again in our reading, and on each occasion recall its associated idea.

These new words should not be introduced in large groups, for it is much more difficult to learn a group of new words than it is to learn words one at a time. (The learning effort probably increases almost geometrically with the number of simultaneous presentations.)

Each word at its first introduction should be driven home by being repeated several times, and it should continue to be repeated at less and less frequent intervals until it has been completely memorized and needs no further impression.

Freeman¹ has shown that the presentation of the object itself, or of a picture, greatly strengthens this associative bond between word and idea. Hence it is useful to have every word illustrated that can be illustrated. The pictures must, however, illustrate the general meaning (or meanings) of the word, rather than the particular context of its introduction.

¹ F. N. Freeman, *Visual Education*, 1924.

Let me illustrate the introduction of a new word according to this technique. The word to be taught is *question*, both as a verb and as a noun.

Then the hen called the cat and they both began to **question** him as fast as they could. 'Who are you?' asked the hen. 'What do you want?' asked the cat. 'I expect you are a thief, aren't you?' asked the hen.

The duckling could not answer so many **questions** all in a minute. 'I want to stay here,' he said. 'I am not a thief.'

'What work can you do?' said the cat, starting her **questions** again. 'Can you catch mice?'

'No,' said the duckling.

'Can you lay eggs?' **questioned** the hen.

'I don't think so,' answered the Ugly Duckling.

At this point two more words make their entry, namely, '*Suppose*' and '*Allow*.'

They went to one side, and talked together. Then they came back, and said, 'We **suppose** that we must **allow** you to stay here. We will **allow** you to stay, **supposing** that you are clean and don't give any trouble—and **supposing** that the old woman will **allow** you to stay here too.'

'**Suppose** that she won't **allow** me?' questioned the duckling.

'It does not really matter whether she **allows** it or not, if we allow it,' answered the cat.

Here the word, '*Peace*,' and the phrase, '*Take notice of*,' make their entry.

So the Ugly Duckling remained there all the winter. At last he had found some **peace**. The cat and the hen left him

in **peace**, because they were friends, and never took any **notice** of anyone except each other. (I expect you have **noticed** that—that girl-friends never do take any **notice** of anyone except each other.) And the old woman never took any **notice** of anyone at all; so she left him in **peace** too.

The Principle of Pleasure

We must here mention another important principle of teaching, namely, the Principle of Pleasure.

We have already seen that schooling is an attempt to predict the situations of actual life. It attempts to ensure that the child shall perform in adult life those actions which he practises at school.

Now there is a natural tendency on the part of all animals to seek the repetition of pleasurable situations and to endeavour to avoid unpleasurable situations. When we teach a child to read a foreign language we are hoping to form in him, not only the actual skill or power of reading, but also a tendency to continue reading after he leaves school. If his work in this subject at school has been associated with strain, discomfort and unpleasure, we shall form in the child a conscious or unconscious dislike of the subject, and hence a tendency to avoid repetition of this situation. The first introduction and the earliest stages are especially important in the formation of this pleasant or unpleasant flavour,

Pleasure (or unpleasure) in reading depends upon two factors : (1) the difficulty of the reading-matter, and (2) the subject of the reading-matter.

The Difficulty of Reading Material

We shall discuss the selection of subjects later. Let us assume for the present that the story is interesting. We may imagine two extreme cases ; one in which the maximum of pleasure will be derived, and another in which the story will give the minimum of satisfaction.

The child will get the greatest pleasure from a story which he reads with complete ease, knowing the meaning of every single word ; and, conversely, a story will give the least possible pleasure in which every word is unfamiliar, and must therefore be looked up in the dictionary, and memorized.

The first of these may be useful in teaching synthesis or skimming, but it will not add to the child's vocabulary. The second will not only be unpleasant, but it will also be a very ineffective form of reading practice, for the impressions of new words will be so numerous as to cause confusion. Also, if all the words are new, it is impossible for any word to occur more than once ; hence the memorizing must be done by oral repetition of the word apart from the reading pro-

cess. This is not Specific Practice. Hence it is a wasteful form of practice, from which the child gets a very small return on his labours.

We must, therefore, regulate the ingress of new words, and fix it at some constant factor. We may select any factor, from one new word per thousand running words, up to 50, or even 100, new words per thousand running words. It is merely a question of cost. If printed words cost one anna for five thousand, at one new word per thousand running words, a vocabulary of 300 new words will cost Rs. 3-12 (that is, the parent will have to pay about five shillings a year for his boy's reading-books). At ten new words per thousand running words the cost would be about six annas (6d.) for a 300-word vocabulary. (The actual standard which we have adopted is 17 per 1,000.)

What is a New Word ?

It is necessary to explain precisely what a 'new word' is. The answer would seem to be obvious, but in fact it is not. The word *Box* has two completely different meanings, and indeed it is a pity that we do not spell *Box* (to fight) in the form '*Bocks*.' In that case it would be obvious that we have here two completely independent new words. If this be so, then, having already taught the word 'To *load* an ass,' should we treat '*Load* a gun' as

a new word? It is very probable that some children will experience difficulty if we do not point it out. Therefore we must point it out. But by so doing we add sixty words to the length of the book. Also a patch of reading in which all the new words were such mere extensions of the meaning of known words, would obviously be far easier than an ordinary passage containing the same number of real new words; but the Principle of Pleasure demands that all passages should be of equal ease.

It is clear that we must adopt some standard to regulate our judgment on this difficult point. The best standard here—as often—is a definition.

Let us attempt to define what a 'new word' is in the learning of a foreign language.

A new word is one unit of work with its corresponding gain in reading ability. The phrase, 'Load a gun,' is not a full unit of work, nor a full unit-gain in reading power; we therefore define it as a 'Usage'; we point it out, but bracket it, and do not count it in regulating the length of the book.

This definition and this treatment is very important, because it simplifies the problem of grammar. 'Tent' is a new word. Tents is a new word. Asses is a simple extension of the new word -s, and is a usage. Kind is a new word. Un- is a new word, e.g. Unkind. Unhappy and

Untrue may for safety be pointed out as usages, but later '*Uns*' are neither new words nor usages, for the child should by now be familiar with the prefix. Thus grammar is shattered into its component fragments.

It must be remembered that we are here speaking of reading-grammar. The right form is before the child and he has only to understand it. Actually very much the same process is applicable to the grammar of speech, but there are cases in speech and writing in which the child finds a rule helpful. We are not concerned with such cases here. In learning to read English there is no need of any separate or formal grammar at all. (In constructing similiar reading material in French and Sanscrit some grammatical lessons have been found necessary, but the amount even there is very small compared with what is usually taught.)

Selection of Material

The second way in which pleasure may be ensured is by selection of the reading material. In order to do this it is necessary to make a study of the reading interests of children at the age for which the reading book is intended. The researches of Uhl, Terman, Lima and Jordan¹ give great assistance on this point. Combining

¹ For bibliography see *Dacca University Bulletin* 13, p. 18.

the results of their studies with the returns of the Y.M.C.A. Helsingfors Questionnaire (for London only) and three studies made by myself of the reading-interest of Preparatory School, Central School, and Elementary School children in England, we obtain the following table :

Age 8. *Fairy tales* are a safe choice at this age ; also stories of *children in other lands*.

Age 9. *Fairy tales of a more complex type* may be used ; but the interest in fairy tales is now fading. *Stories of the child's own environment*, e.g. A Visit to the Fair, and tales of *Boy Scouts*, are more popular.

Age 10. Fairy tales are now definitely out of favour. *Stories of adventure and travel* are preferred. There is some interest in *mechanical inventions*.

Age 11. *Henty's books* and books of the same type are now popular ; also *animal stories*.

Age 12. *School stories* are first commonly mentioned at this age (though Terman puts them at age 11). *Biographies* are popular. *Detective and mystery stories* are much favoured.

Age 13. Much the same as ages 11 and 12. *Adventure stories* are of the more complex type, e.g. 'King Solomon's Mines.' Matter about *hobbies* and 'The Successful Inventor' plot are popular.

Age 14. *Jungle stories* and tales of the wilds may safely be placed here. The taste of the children is very varied now, and all the ordinary 'Books for Boys' are mentioned.

Knowing the average age of starting and the normal rate of progress, we can learn from this what

sort of material we ought to include in each reading-book.

The Selection of Vocabulary

It is easy to discover what we ought to include in the reading-book; but it would seem to be a far more difficult task to include it,—especially in the early stages. An English boy of eight likes fairy tales, and an English boy of eleven likes adventure stories. But an English boy of eight has a vocabulary of about 4,000 words, and an English boy of eleven one of about 7,000 words; whereas an Indian boy of eight knows 200 English words, and the eleven-year-old about 1,000.¹

So far from being able to tell fairy tales to the eight-year-old Indian boy, it is extremely difficult to tell anything at all in the earliest stages, when the vocabulary is only two hundred words or less; for that is the vocabulary of an English child of two. And the eleven-year-old Indian boy will be condemned to read stories written for English children aged four.

This difficulty is overcome by the device of word-selection. The vocabulary of the English child is a miscellaneous collection and contains many words of slang, or words peculiar to his

¹ *Bilingualism*, Tables 62 and 63.

own environment, which do not help him in his reading; also a number of synonyms where one word would really serve, and some very rare words which he seldom uses. By scientific selection of words, so that each and every word is of the greatest possible utility, we may be able to give to the foreign boy a vocabulary whose practical value for reading is far in excess of its numerical size. Thus at every stage the child will derive the maximum possible utility and pleasure from his study of the language.

This is achieved by selecting the words according to their commonness in the language as shown by a word-frequency list.

Word-frequency lists are constructed by making an actual tabulation of all the words found in certain types of material and noting the frequency of occurrence of each. The material varies in the various lists. Some lists are specific, aiming at discovering the nature of the vocabulary of some particular type of reading-matter, e.g. Eldridge—newspapers; Ayres—business letters; Pressey—scientific books. Others are general and make their selections from a wide range of materials of various kinds; such lists are Thorndike's and Dewey's in English, Henmon's in French, and Buchanan's in Spanish.

By selecting our vocabulary from such a list

we are able to ensure that (in general) the more common, and thus more useful and more needed, a word is, the earlier it is introduced. Thus at every stage the child's vocabulary, however small, is of the greatest possible efficiency for its size.

The Reliability of Word-frequency Lists

We defined education as a process of predicting situations likely to be encountered by the child in his future life, so that the correct responses might be practised in advance.

The problem here is to predict what foreign words he will require in his adult life. In order to predict this correctly we study the words used by adults, and we assume that the words most used by adults are those most likely to be needed by the child when he has become an adult.

There are two objections to this argument :

1. If the word-frequency list is a reliable prediction of the words most used by adults as a whole, then the various lists of different compilers will agree with each other. But they do not entirely agree.

2. We know that the child will become an adult, but we do not know what sort of an adult he will become. We know that the frequency-list varies according to the subject on which it is based. So also will the vocabulary-needs of

the individual child vary according to his individual interests.

Let us consider the first point, the divergencies of word-frequency lists. All the word-frequency lists agree closely as regards the first five hundred words; and they agree fairly well as to the first thousand. Beyond that they show increasing divergencies. On these grounds they have been criticised by Ayres, and, most recently, by Dr. Faucett,¹ as unreliable guides.

The first source of unreliability arises from the fact that after the first thousand words the frequency of occurrence decreases very rapidly. Thus Ayres, counting 100,000 words (according to Faucett), found that after the 151st word no entry had more than 100 occurrences, and the last 50 words of his list had only 12 occurrences.

The effect of this is that, when one is working on the first five hundred words (that is, introducing them into a reading-book), the order of the frequency list should be closely observed. In the case of the second five hundred the order is of less significance; and in the case of the second thousand the list is merely an indication of usefulness, but the actual placing, or order, of the words is

¹ *Teaching of English in the Far East*, World Book Co., 1927, p. 161. A very excellent discussion of this subject will be found in *Reading and Word Meanings*, by E. W. Dolch, Ginn & Co., 1927.

accurate only within a very wide margin. At this stage other criteria of selection begin to exercise greater and greater weight.

Secondly, the word lists are influenced very considerably by the nature of the material used in constructing them. In both the Thorndike and in the Dewey¹ lists great care has been exercised in making this material representative of a wide field of subjects. Thus Dewey uses twenty sources, taking five per cent. of his words from each. Here, however, the question of weighting enters; can it be said that business letters and newspapers are of equal importance? If they are not, what relative weights should be given? Probodh Deb Choudhury² has varied the weighting of his different sources, but this was necessarily done by conjecture as to their relative importance. He has also kept the counts from the various sources separate so as to be able to show the frequency order in the individual departments. This is very sound, although such sub-division of the list results in very low frequencies of the rarer words.

If we examine the matter more carefully we shall see that in reality vocabulary may be classified into four main categories, and that the reliability

¹ G. Dewey, *Relative Frequency of English Speech Sounds*, 1923.

² *A Study of Word-Frequency in Bengali* Dacca University Bulletin xiv, 1931.

of any word's credit-index varies according to its category.

Class 1. Essential Words

If we make a count of any material whatsoever, so long as it is running prose (not a catalogue or time-table), we shall find a predominating number of words such as A, The, There, Which, Who, Is, Do, Say, Thing, etc. These words are the connective tissue of the language. One cannot say anything without them. There are about three hundred of such words, and until one has got all these words (actually about half-way through Reader 1 B in our materials) the task of composition is extremely difficult.

Class 2. General Words

If we count any *literary* materials we shall find a number of words which are not in any way specialized in their reference, and are in most cases synonyms and refinements of words which we have already got among our Essential words. Thus we have the Essential word 'Say' and the General words 'Reply, Question, Assert, Deny, Suggest'; the Essential word 'Do,' the General words 'Attempt, Achieve, Finish, Accomplish.' These words are necessary to any elegance or exactness of expression, but we can conceive of material (such as technical descriptions) which might use very few of them.

Class 3. Common Environmental Words

If we study any ordinary material we shall find a large number of words dealing with the common environment and activities of men, such as 'Food, Eat, Sleep, House, Wife, Field, Animal, Money,' and so on. Such words are common in narrative material; and even a history or

geography book would contain them in fairly large numbers; but in a book of chemistry or physics they might be rare.

Class 4. Specific Environmental Words

If we study any specialized material we shall find certain words peculiar to that material. Thus if we take a narrative which is at all localized, or anything dealing with the doings of some particular men, we find certain words special to the particular environment, common enough in that environment, but found little or not at all outside it. In Class 3 we have 'Money,' but in Class 4, 'Rupee, Pound, Dollar.' In Class 3 'Animal,' in Class 4, 'Camel, Bison, Reindeer.'

We are endeavouring to predict what words will be most useful to the child in his future life, and we are endeavouring to get together a vocabulary which will be of the greatest possible service and pleasure to him now.

We may predict with absolute certainty that the child will need all the Class 1 words. We may be fairly sure as to the first part of Class 2: but the later words in Class 2 will not be needed unless the child is going to study the language in its literary aspect. We may be moderately certain in regard to Class 3. As regards Class 4 we cannot be sure at all.

Teachers in Europe commonly assume that the boy needs the foreign environmental words, and we find in their textbooks much of the vocabulary of French or German home life. Yet a very large

proportion of the young students of the German language will require the language mainly, if not entirely, in connection with scientific study. On the other hand, teachers in India always assume that the home environmental vocabulary is needed, and they tend to veto descriptions of European life; yet why should an Indian boy discuss his home life in a foreign language when the mother-tongue is so much more apt? He is far more likely to wish to read English stories, for whose understanding the foreign environmental vocabulary will be very necessary.

Thus in regard to Class 4 we cannot make any prediction at all.

The conclusion is obvious. We should build up our vocabulary, not in strict order of frequency, but in such a way as to teach all the Class 1, Class 2 (first half) and Class 3 words, but as few of the Class 4 words as possible. Some of these last are inevitable; if we tell fairy tales we must have princesses and wizards, and in history we must have armour and battles. But the number of such words should be kept as small as possible.

These four classes of words are mixed together in the frequency list. The first five hundred words are mainly composed of Class 1 and Class 3. The next thousand are mostly Class 2 and Class 3. At the end of the second thousand Class

4 begins to appear in considerable numbers. And this brings us to our next point, the size of vocabulary. How many words shall we teach?

The Size of Vocabulary

What constitutes an effective working vocabulary in a foreign language? How many words does one need to know in order to read anything one wants to read without having to refer too frequently to a dictionary?

Size of reading vocabulary has already been discussed elsewhere.¹ Five thousand words will enable a boy to read any ordinary 'Boys' Book'—Henty, Valentine, Marryat, etc.—without excessive dictionary work. I believe that seven thousand would be enough for almost any novel. Seven thousand words probably includes the whole of the Class 1 and Class 3 and most of Class 2; thus the only words which one would have to look up would be specific (Class 4) words.²

We are here assuming that the books have not been edited in any way. If we ask how many words are needed in order to be able to read any

¹ *Bilingualism*, p. 237.

² It will be seen from the next Chapter that these numbers are deceptive; for, by the time the child has acquired 2,280 words, if he has been properly trained, he knows and can recognize most of the commoner prefixes, suffixes and roots of English; and a very large proportion of the less frequent words are merely new combinations of these roots and adjuncts.

ordinary novel *in an edition prepared for foreign students*, then we are asking quite a different question, viz. How many words are really necessary in order to enable one to *tell* any ordinary novel?

We have already mentioned the subject of supplementary readers—that is, books written within the vocabulary already known at various stages of the course, so that they contain no new words. We have actually constructed such readers¹ at the following stages—458 words, 758 words, 1,072 words, 1,415 words, 1,779 and 2,280 words.

Extracts from these books will illustrate better than any discussion the capacity and ‘elegance’ of the language at each stage.

Supplementary 1. 458 words.—(*The bare narrative, and that has sometimes to be modified to evade difficulties; only selected stories can be told.*)

Then the Queen’s brother took the child from her arms. He jumped into the sea; the water went over his head; they could not see him any more. They waited. After some time he came back; he put the child into the arms of the Queen, and said, ‘He is a child of the sea. He lives in the water. . . . He will bring you back to the sea at last.’

Then the Queen’s brother, and all the men with him, went away, down into the sea.

Years went by. The King of Persia was very happy. His Queen spoke to him now, and he loved her more than ever.

¹ *The New Method Series (Supplementary Readers)*. Longmans Green & Co.

At last the King became old. He fell ill.

It was night. The Queen sat by his side. He opened his eyes and looked at her; 'I must go now,' he said. . . . He shut his eyes; he was dead.

Day was near. The Queen heard the noise of the sea at the foot of the hill, like great bells ringing. She took her son by the hand. And they went down the hill, hand in hand, to the sea.

Supplementary 2. 758 words.—(*Almost any fairy story can now be told, and some occasional elegance is possible; but the style is undistinctive.*)

So he looked down the hole into the Stone; the Sun-fairy and the Moon-fairy were not there. There was only a clear drop of light where they had rested. Then the Nightingale knew that they had died.

'They could not live away from the Sun and the Moon,' he said. So all night he sang his saddest songs, and told their story again and again.

But through the Stone, in which the fairies had hidden, there went clear rivers of light. They filled it with the gold of the morning, with the red fire of sunset, and the silver of night. So that the Stone, from being the ugliest thing in the whole forest, became the most beautiful.

Men found it, and called it the Opal. But the Nightingale knew that it was the little Sun-fairy and the Moon-fairy who in their death had filled the Stone with their colours and light.

Supplementary 3. 1,072 words.—(*The style begins to show some resemblance to the original from which the passage is taken. Some modifications and omissions of incidents are necessary.*)

I awoke to hear the sound of a gun, and soon after that I heard the captain's voice. I climbed up to the top of the

hill. There the captain stood, and, pointing to the ship, he said, 'My friend, who has saved me, there is your ship. She is all yours, and so are we, and all that is in the ship.'

I took with me Friday. I took also some of the things which I had made, so that I might remember the island in after-years. I left the island in 1686, after I had been upon it twenty-eight years, two months and seventeen days.

I made other travels after this. These are not told to you here.

I am now an old man; I am preparing for a longer journey than all these. I have lived many years, a life of many changes; and I have learned the blessing of ending our days in peace.

Supplementary 4. 1,415 words.—(*No restriction as to incidents. The whole book could have been told without any modification to suit vocabulary.*)

Deerslayer quickly returned. He took hold of a plant growing up out of the water, about one hundred yards from the shore, and waited there alone, silent, in the darkness.

An hour and a half passed. Then suddenly the sound of shots and fierce cries broke through the quietness of the night. Then he heard the breaking of branches, the cracking of dried sticks, and the fall of feet. The sound seemed to come nearer to the water. Men were breaking through the bushes and the trees on the top of the bank, as if they were seeking a place for descending. Just at that moment five or six shots were fired. There were one or two cries, as of brave men in sudden fear. The voice of Harry was heard filling the air with shouts of anger, and he rolled onto the narrow shore loaded with enemies. Tom rushed back to the shore to aid his companion.

'Keep off the land,' he shouted as he went; 'the girls

depend only on you now. God help you to preserve them.'

There was a deathlike silence. The party on shore had disappeared into the woods. Deerslayer sat forward to listen, holding his breath. It seemed as if a silence that had never been broken lay like a dreamless sleep upon the lake.

Supplementary 5. 1,779 words.—(*For the most part the book could be adapted merely by excision of 'outside' words. Only highly localized colour causes difficulty, e.g. giraffes, stalactites.*)

Scragga advanced a step and lifted his great spear. I saw Good's hand creep to his pistol. The girl saw the glitter of the spear through her tears. She ceased struggling and stood clasping her hands and shaking with fear.

'Oh, mother, my name is Foulata. Why must I die? I have done no wrong!'

'Be comforted,' said the old woman in a hateful voice full of evil laughter. 'You must die as a sacrifice to the Old Ones who sit yonder,' and she pointed to the mountains. 'It is better to sleep in the night than to be weary in the daytime. It is better to die than to live; and you shall die by the royal hand of the King's own son.'

The girl Foulata clasped her hands in despair, and cried aloud, 'Oh, cruel! and I so young! What have I done that I should never again see the sun rise out of the night, or the stars come following on his track in the evening; that I may no more gather the flowers when the dew is heavy, or listen to the laughing of the waters; that I should never see my father's hut again, nor feel my mother's kiss, nor care for the lamb that is sick; that no lover shall put his arm around me and look into my eyes, nor shall men-children be born of me? O cruel, cruel, cruel!'

And again she clasped her hands and turned her flower-crowned, tear-dewed face to heaven, looking so lovely in her despair.

Supplementary 6. 2,280 words.—(*Owing to the large number of known roots with known adjuncts, the number, 2,280, has little meaning. Only Scott's archaisms give trouble.*)

'Farewell, Front-de-Boeuf. Know, if it will give you comfort, that Ulrica, companion of your guilt, will also be companion of your punishment, and will be your fellow-traveller to that same dark coast with yourself.'

So saying, she left the room; and Front-de-Boeuf could hear the sound of the heavy key as she locked the door behind her, thus cutting off the least chance of escape.

In his pain and terror he shouted upon his servants and allies, 'Stephen and Saint Maur, Clement and Giles—I burn here unaided. Save me! Save me! Bois-Guilbert! De Bracy! They hear me not; my voice is lost in the noise of battle. The smoke rolls thicker and thicker; the fire has caught upon the floor below. Oh, for one draught of the air of heaven!' In the madness of despair the miserable man now shouted with the shouts of the fighters, now called curses on himself, on mankind, and on heaven itself. 'The red fire flashes through the thick smoke! Ha! ha! ha!' and he laughed in his madness till the arched roof rang again. 'Who laughed then?' he exclaimed in altered mood. 'Ulrica, was it thou?'

The enquiry will naturally be made as to why all these limited vocabularies are capable of so much more than one would expect. Why are so many words used in ordinary conversation and

writing when so few will do? One reason is that our words are like our shoes; we have a very large number, but we use most of them very seldom; and, at a slight sacrifice of smartness, we could really dispense with those merely 'Kept for best.' Again the composite nature of the language, with its English-French-Latin origin, is responsible for a great deal of duplication and triplication of words. Yet even with these two excuses, so large a discrepancy between the number of words we have got and the number of words which we need is difficult to explain. One must, perhaps, confess that—as in the case of the shoes—it is just sheer extravagance.

The Importance of Textbook Construction

I have entered into this subject of textbook construction in considerable detail—in what may be considered, perhaps, unnecessary detail. My purpose is to show how much detail there is.

If the reader were compelled to spend fifty or sixty hours every month in a certain motor-car, every year, he would take considerable care to ensure both its efficiency and its comfort. A child spends fully 50 hours in the month in the company of his English reading-book—and that book is often the product of a pair of scissors, a pot of paste, and an out-of-work lawyer.

We have discussed the construction of the teaching instrument. We have now to consider very briefly the methods of using it. This is a question of the lesson-form.

The Lesson-Form

In textbook discussions of 'Steps of Teaching' it always seems to be assumed that a lesson-plan is something which extends over a whole period, with something different happening every few minutes. Whereas, if you watch any skilful teacher taking a class in a subject which he has been teaching for years and years, you find that the main portion of his lesson always consists of some simple unit which is repeated over and over, rather like the steps of a dance.

The essential elements of any unit of practice are :

1. Preparation—to remove difficulties and to prevent mistakes.
2. Actual practice-work by the pupil.
3. A test of the amount and accuracy of the skill gained by the pupil in this practice.

Item 1 should be as short and rapid as possible ; so also item 3, for these are done mainly by the teacher, and everything that is done by the teacher in a reading lesson (for example) keeps the boy away from his actual reading, and is there-

fore a loss of time devoted to specific practice.¹ So also in arithmetic, and in every subject of which the essence is the acquirement of skill.

There are two reasons why notes of lessons differ so very widely from the actual practice of experienced teachers. One is that (perhaps owing to the influence of Herbartianism) the Training College tends to treat all school subjects as knowledge, whereas most of them are skills. The other reason is that there is no satisfactory notation in common use for indicating that element of repetition which is characteristic of a skill-lesson.

Let us devise one. Here is a typical notation:¹

A	
3§	B 1.
	B 2.
C	
D	

This reads as follows :

A ; B1.2, B1.2, B1.2, C ; B1.2, B1.2, B1.2, C, etc., till the last few minutes, and then D.

A is summary of the last lesson and other preliminary matter ; D is summary (or test) of this lesson. The unit B C in a lesson on reading aloud might be :

¹ See *Thirty-six Lesson Forms*, by the Staff of the Teachers' College, Dacca ; Longmans Green & Co.

- 3§ | B1. Boy reads ; others correct.
- 2. Drill on words mispronounced.
- C. Questions on the substance (after every three sections of the book, or after every three boys' reading).

In a lesson on Geography it might be :

- 3§ | B1. Teacher expounds one unit.
- 2. Answers to questions of the class.
- C. Questioning by the teacher on three units of exposition.

Nothing could appear simpler than this. And the obvious deduction from these remarks is that teachers and students in training should frame such little schemes for themselves, instead of the ponderous notes of lessons which they have been hitherto using.

Our own experience, however, is that it is quite impossible, sitting at a desk, to produce at the first attempt a faultless lesson-form. On the contrary, I can think of a lesson-form which took about four years to perfect—and it is not perfect yet. It has been modified eight times.

The form given on page 99 has six serious flaws in it and is, in practice, quite useless and almost unworkable.

The following are the criteria of a good lesson-form:

1. Steps which are merely subsidiary to practice must be as few and brief as possible.

2. The practice step must be fully safeguarded against error.

3. The form must be simple, so that the children can get used to it and realize it.

This last is very important. The essence of effective teaching is a well-trained class which knows its lesson-form, so that no orders are required from the teacher on matters of normal routine. With a perfectly trained class the work goes on so smartly and automatically that one hardly notices the teacher; indeed, the work should go on just the same if he leaves the room.

There is no need to discuss this subject further. The point which I wish to emphasize is that the lesson-form is not a thing which the young teacher can devise for himself, nor is it a thing which a professor of education can devise sitting at a desk. It must be the outcome of a great deal of highly skilled experiment and observation. A scientifically designed textbook and a scientifically designed practice-form—these two make up a complete system of teaching in a skill-subject.

Of these two, I regard the devising of the lesson-form as the harder task.

There is room for much valuable research in this small, but little explored, subject.

LESSON-FORM

English Reading. *Class V (10-11 years old)*

- 2§
- A. Revision of last lesson.
 - B. 1. Drill new words.
*¹
 - 2. Boys read and find answers to questions; stand as soon as they finish. Teacher notes time.*²
When all*³ have finished—
 - 3. Boys write answers.*⁴
*⁵
 - C. Individual boys tell substance of two sections.
 - D. Change papers, and correct.*⁶

* Faults.—¹ Insert a step to ensure that the boys understand the questions.

² This is unnecessary, and causes undue haste.

³ 'When *nearly* all have finished'; Indian classes are large and very badly graded.

⁴ Writing wastes time; oral answers may usually be taken, with writing only occasionally.

⁵ Insert a step to review the substance before re-telling.

⁶ No need to change papers; it wastes time. The teacher, helped by the quickest boy, corrects in step 3.

CHAPTER VI

THE FINAL STAGE OF READING

UP to the present, reading ability in a foreign language has ordinarily been created in one of two ways :

1. *The Intensive Method.*—The pupil studies a small number of prescribed texts in detail, and gradually acquires such command over the vocabulary and forms of the foreign language as may enable him to attack other reading material. The prescribed texts are selected with reference to their apparent difficulty, so as to yield somewhat of a graded course, but they are not ordinarily ‘prepared’ to any great extent so as to secure exactly determined levels of difficulty. The disadvantage of this method is that in the first part of the course the texts are inevitably rather difficult for the pupil, or else infantilely dull ; and the detailed method of study sets up habits of word-by-word deciphering, and prevents the formation of the direct bond. As a consequence, even when the pupil has acquired adequate vocabulary to attack other material, he reads by

habit slowly and laboriously, tending on the slightest provocation to relapse into deciphering and translation. Instance the reading of Latin by the majority of students taught in the conventional manner.

2. *The Extensive Method.*—Here the pupil is required to read widely, inferring the meanings of words where possible from the general context. It is believed by the adherents of the method that an adequate vocabulary will be gradually acquired owing to the more frequent impact of the more common (and so more useful) words, and that the direct bond is encouraged by the wider and more rapid nature of the reading (as contrasted with that of the Intensive Method). It is evident that this method is applicable only in the case of closely related languages, such as English-French, in which there are many cognates: it would not be possible, for example, for an English boy to learn to read Hindi or Telugu by this method, for he would in the initial stage encounter cent. per cent. unknowns and have no materials for inference. In those circumstances in which the method is applicable it is open to the objection that it tends to develop in the pupil a habit of leaping over difficulties, so that when, after the conclusion of his course, he attacks other reading material, he may, by a faulty inference, form (and

remain contented with) a completely wrong interpretation of a passage. It has the further disadvantage that this acquisition of vocabulary by haphazard encounter must involve a large amount of waste—in re-learning words met once, but forgotten before they are encountered again. It must involve also a rather large element of words incompletely ‘inferred’ in some context and never completely and correctly acquired. (For example, the writer went about for years with the notion that ‘hobo’ meant ‘a stranger, a greenhorn’: that interpretation, no doubt, fitted the original context.)

The above objections to the Extensive Method refer more particularly to its use in schools; to the case of more mature students, of college grade, who are able to infer meanings more readily and more accurately than the child, and who possess a larger mother-tongue vocabulary for recognizing cognates, these objections clearly have less application. The Extensive Method has achieved notable success at the college level,¹ and is clearly—with existing reading materials—to be preferred to the other.

I have endeavoured to show in the preceding chapter that the ideal method should be one

¹ Hagboldt, P., *German Quarterly*, November, 1928, and March, 1929.

which combines the complete understanding (as found in the Intensive Method) with the rapid reading for content of the Extensive Method, and that these advantages may be combined by the special preparation of texts in which the incidence of new words is so limited as not to prevent rapid reading or the formation of a direct bond. Such new words as are introduced are, however, acquired thoroughly; and there is no skipping over of difficulties. At intervals in the course reading matter is provided in which there are no new words—its purpose being (apart from review of vocabulary and stretching of connotations) to provide a 'fluency plateau' on which the direct bond may be more firmly secured.

Let us suppose that our pupils have been brought up on such specially prepared material. Let us suppose that they are now reading fluently, easily, and pleurably, and with a securely established direct bond. (Such has been the dominant purpose of the first part of the course, rather than mere vocabulary increase; and this purpose can in actual fact be very easily achieved.) Let us suppose that the vocabulary of the class is now 1,779 words: within this vocabulary they are able to read material which appears to be of considerable difficulty: indeed it is actually possible to re-tell within this vocabulary almost any ordinary

novel and any non-technical material. The question will naturally be asked, 'Are they able to read ordinary material not specially prepared for them?'

The answer is that they would have difficulty.

The problem of 'weaning' is the problem of giving to such a pupil, who is already able to read prepared material very fluently, the power of coping with other, unprepared material—with any ordinary book suited to his age, which he may take down from the library shelf.

The first, and obvious, thing to be done is to bring about a rapid increase in vocabulary. Such forcing of vocabulary-growth was undesirable in the early stage, owing to the danger of interference with the development of the direct bond. The pupils now have the direct bond, and, within reasonable limits, there is now no fear of spoiling it. We may, therefore, increase the density of new words (which till now has been seventeen new words per thousand running words) up to twenty new words per thousand. Any much greater density might be dangerous.

[It is interesting to notice that in controlling the ingress of new vocabulary one is always doing the exact opposite of what actually happens with the uncontrolled vocabulary. With unprepared reading, new words in the early stages are very numerous, and one has to reduce the number in order to make the text easier. In the later stages, when the pupil

has a fairly large vocabulary, one has, with most types of material, to *increase* the ingress of new words—else the pupil may read a whole page and get nothing from it at all except over-practice of known words.]

To what point must the vocabulary be increased in order to yield the power of reading unprepared material? It is impossible to give any one definite answer to this question. It is evident that the vocabulary can never be raised to that point at which the pupil will encounter no new words, for we encounter new words even in reading our own mother-tongue. Moreover, as Hagboldt¹ suggests, it is probable that the greater part of our vocabulary in the mother-tongue has been acquired by inferring the meanings of unknown words encountered in our reading.

The vocabulary must, therefore, be raised to that point at which the pupil is able to infer the meanings of the residual unknown words. If he knows none of the words on the page, obviously he cannot infer, because he has nothing to infer from. If he knows enough of the words on the page to get the general meaning, he may be able to infer the meanings of a considerable portion of the rest.

This, however, is not a sufficient answer. It is possible to work out, with much 'sweat and

¹ *Modern Language Journal*, December, 1926, p. 129.

strain,' the meaning of a Latin unseen in which unknown words are a large proportion of the total. But we have to remember the Principle of Pleasure. It is no use turning a pupil out into the world in the hope that he will continue to read a foreign language if such reading is to be a process of 'sweat and strain.' The vocabulary must, therefore, be raised to that point at which unknown words are so small a proportion of the total as to cause no inconvenience: and the more the pupil knows, the easier will the rest be to guess.

What that exact point is it is impossible to say. The answer can only be obtained by actually constructing a vocabulary (in the process of making the reading material) up to various points, and then testing out suitable material in the manner shown below. (The other way is to take various numbers of words on a word-frequency list, and experiment in a similar manner.)

Let us suppose that the pupil knows some 2,280 words (New Method English Readers, IA to VI), will he now be able to read an ordinary English novel? Let us take the first page of *John Halifax Gentleman*. (A more modern novel would usually be a shade easier.) The omitted words are those which the pupil will not know. Where a number is repeated, the word occurs twice. It is suggested that the reader should write down his own

conjectures as to the missing words, before looking at the correct answer (footnote on page 115).

John Halifax Gentleman

‘Get out o’ Mr. Fletcher’s road, ye idle, . . . 1 . . . -ing, little —!’

‘. . . 2 . . . ,’ I think the woman (Sally Watkins, once my nurse) was going to say, but she changed her mind.

My father and I both glanced round, surprised at her unusual . . . 3 . . . of . . . 4 . . . : but when the lad addressed turned, fixed his eyes on each of us for a moment, and made way for us, we ceased to wonder. Ragged, muddy, and miserable as he was, the poor boy looked anything but a ‘. . . (2) . . . ’

‘Thee need not go into the wet, my lad. Keep close to the wall and there will be shelter enough both for us and thee,’ said my father, as he pulled my little hand-carriage into the . . . 5 . . . under cover from the . . . 6 . . . -ing rain. The lad with a grateful look put out a hand and pushed me farther in. A strong hand it was—roughened and browned with labour—though he was scarcely as old as I. What would I not have given to have been so . . . 7 . . . and so tall!

Sally called from her house-door, ‘Wouldn’t Master Phineas come in and sit by the fire a bit?’ But it was always a trouble to me to move or walk; and I liked staying at the mouth of the . . . (5) . . . , watching the autumnal shower come sweeping down the street: besides, I wanted to look again at the stranger-lad.

He had scarcely stirred, but remained leaning against the wall—either through weariness, or in order to be out of our

way. He took little or no notice of us, but kept his eyes fixed on the . . . 8 . . .—(for we actually boasted a . . . (8) . . . in the High Street of our town of Norton Bury)—watching the . . . 9 . . . -ing raindrops, which, each as it fell, threw up a little mist of . . . 10

Can the pupil get the general sense of the page? We are inclined to answer 'Yes.'

Has the pupil a reasonable chance of guessing the meaning of the missing words? That is for the reader to decide.

Let us see where these unknown words stand in respect of frequency. If the pupil were to learn another thousand words he would know No. 10. For No. 8 he would need another 2,000 (on Thorndike's list, but would be likely to learn it earlier). For No. 5 he would need another 2,500 words. Three of the words do not occur in Thorndike's list.

Numbers 2 and 3 contain fairly common elements and might be got at through etymology.

(The next page is harder, as it contains a description, but one can follow the general sense, except one sentence about the sounds of the street—unless 'bur' and 'prattle' are identified as onomatopoeic. The third page is of the same difficulty as the first, 13 new in 344 running, but two of the new words are compounded of known elements—Pro-pel, Ear-shot; and two others are very obvious from their context.)

We come back to the question, 'Are 2,280 words to be considered enough?'

It would seem that the answer is—'Yes, so far as the Frequency list is concerned.' It is not much use following the Frequency list any further; it has now become rather an 'Infrequency list': when one gets to these words in the late third and fourth thousand, and beyond, the chances of their occurring are so small that each effort of word-learning adds very little to the total efficiency of the known vocabulary.

If more words are to be added, we must do something to increase the value of each addition. The words must be selected not by their frequency but by the value of the roots (or prefixes or suffixes) which they introduce. Further, the pupil must be taught to look at the roots and prefixes and suffixes of words. (In actual fact—in the New Method Series of English reading-books—this type of etymological study was begun immediately after the 1,779 word stage, in Book VI.)

What of the words whose etymology gives no help?

Up to the present (1,779 words) we have been giving the meanings of unknown words in the vernacular. It is now time that our pupils be taught to use a dictionary written in the foreign tongue. We do not mean (as some classical teachers of our

youth appeared to imagine—and some makers of textbooks still do) that there is any virtue in thumbing over the pages of an alphabetically arranged word-list or dictionary—the clumsier the better!¹ The virtue lies in understanding the explanation given in the foreign language; it is always more reliable, it averts ‘indirect bondage’; it often teaches one an extra new word in learning the meaning of the word being studied.

(Hence from the 1,779 word stage, in New Method Book VI, we have been giving explanations of new words in English, using so far as possible the words of the dictionary, discussing the full connotation, and bringing in all closely-related words which can easily be remembered in the same stride.)

But we cannot expect the pupils (unless this word ‘pupils’ be used in the feminine only;—they are more conscientious) to look up eight words on every page. We may reasonably allow them to do what we actually do ourselves—guess if we can, use a dictionary if we can’t. That means that the pupils must acquire some power of intelligent inference of the meanings of words from their context.

Where should training in the Art of Inference begin? How should it be carried out?

¹ Incidentally, if the makers of dictionaries for schools would only cut them like address books, much child-time would be saved.

We here encounter a very wide divergence in teaching method. In some schools and colleges in America pupils are set to do 'extensive' reading of unprepared material in their second or third semester. Such a procedure is only possible, of course, in closely related languages.

The writer is inclined to question the wisdom of beginning inferential reading at so early a stage, especially in circumstances in which there is no surety that the pupil will actually attempt any inference: he would seem far more likely merely to gather the general sense of the page without troubling to get the missing items at all. It has been seen above (*John Halifax*) that this can readily be done. We believe that inferential reading should not be begun until the end of vocabulary construction is in sight—lest we breed a habit of jumping over unknown words which will hamper the process of vocabulary-learning. We believe also that it should be done under conditions in which the pupil cannot jump over the unknowns—that is, it should be done mainly in class; and the pupil should be required, besides getting an idea of the general substance, to note the unknown words and write down what he thinks they mean. These inferences may later be discussed and verified in class: 'Why did you think it meant that?—Yes, but look at this place where it comes again; here

your meaning obviously would not quite fit. Who has got a better suggestion?' *etc.*

It is clear that for this type of work to be successful two conditions are essentially necessary:

1. We cannot require the pupil to infer the meanings of unknown words, unless we know which the unknown words are. When the prior part of the reading course has been built up systematically, we know exactly what words are known to the class—and hence which words are unknown. In the absence of a previous course of prepared material, the best that can be done is to pick out certain words of low frequency which are likely to be unknown. In either case we must indicate which are the words whose meaning is to be inferred; the rest must either be assumed to be known, or we must give their meanings.

2. We cannot ask the pupil to infer the meanings of words unless we give him adequate clues. Otherwise we merely encourage wild guessing. The clue must either be etymological—a known root or prefix, or both—or adequate 'pointers' in the context. If the text says that 'the murderer struck down his victim with a . . . , ' it might be anything: but if the sentence read—'with a . . . snatched up from the fireplace,' it can only be one of four things: add 'heavy, iron' and it can

only be one of two things ; and if we find later that the force of the blow bent it, it can be only one thing.

It follows that, after we have determined which words are to be inferred, we must work over the text to ensure that every such word possesses adequate clues. It is further necessary to try out the finished passage on a reasonably intelligent class—for the answers always seem very obvious when you know them, and yet they may not be so obvious as you think.

Below is given a passage so prepared. (The unknowns in it are more numerous than is usual in the rest of the material from which it is taken. The text has been slightly modified from the original, so that some clues are given to the meaning of every unknown word. It happens that only in the case of No. 5 does etymology here give any assistance. The reader may observe his own reaction to the passage: the answers are given at the end of this chapter.

THE VICAR OF WAKEFIELD

Our peace was soon disturbed by the loud . . . 1 . . . of a gun near us, and a man was seen bursting through the hedge to take up the creature he had killed. This sportsman was the Squire's chaplain. So loud a . . . (1) . . . (and so near) . . . 2 . . . -ed my daughters, and I could perceive that Sophia in her fright had thrown herself into the arms of

Mr. Burchell for protection.—The gentleman came up and asked pardon for having disturbed and . . . (2) . . . -ed us, . . . 3 . . . -ing that he was ignorant of our being so near. He then sat down by my youngest daughter and, sportsman-like, offered her what he had killed that morning: 'Will you accept this?' he asked. She was going to say 'No,' but a private look from her mother induced her to correct the mistake. She replied to his question in the . . . 3 . . . -ative, and thanked him for his present—but unwillingly. 'I have come on a pleasant . . . 4 . . . ,' said the chaplain; 'the pleasant purpose of my journey is to inform you that Mr. Thornhill has provided a table of . . . 5 . . . and music for dancing. He intends giving the young ladies a . . . 6 . . . by moonlight on the grassy lawn in front of their house. I . . . (3) . . . ,' continued he, 'that I am fortunate in being sent on this . . . (4) . . . ; the messenger is worthy of some . . . 7 . . . I expect for my . . . (7) . . . to be honoured by Miss Sophia's hand as a . . . 8 . . . at the . . . (6) . . . '

Finally, if the pupil is to be practised in inferential reading, mere snippets of such material, like Latin unseens, will be of little use. For the Latin unseen is made unfairly difficult by the mere fact of its being a snippet; the clue in inferential reading is often given by the general plot as well as by the immediate context. It is necessary that the training-material should be a whole book (or books), in which the inferential words are disposed at such a low density as may not interfere with either the directness of the

bond, or the pleasure of reading. We must not let a pupil get the impression that, once he leaves the beaten track of prepared material, the rest of the literature of the language is a dense jungle through which he has to wriggle and hew his way. Rather let him believe—as is actually the case—that, given a little common sense and some elements of etymology, it is really very easy—and a few unknowns only make it all the more amusing.

Answers to Problem 1. *John Halifax*. 1—Lounging, 2—Vagabond, 3—Reticence, 4—Epithets, 5—Alley, 6—Pelting, 7—Stalwart, 8—Pavement, 9—Eddying, 10—Spray.

Answers to Problem 2. *Vicar of Wakefield*. 1—Report, 2—Startle, 3—Affirm, 4—Errand, 5—Refreshments, 6—Ball, 7—Reward, 8—Partner.

CHAPTER VII

SPEAKING-VOCABULARY IN A FOREIGN LANGUAGE

One Thousand Words

THE scene is the cell of the Abbé Faria in the Prison of the Château d 'If. The persons present are the Abbé and Edmond Dantes (later to become Count of Monte Cristo).¹

'I do not speak modern Greek as well as I could wish,' continued the Abbé; 'but I am trying to improve myself.'

'Improve yourself!' replied Dantes. 'How can you manage to do that—in a prison, with no books?'

'Why,' replied the Abbé, 'I made a vocabulary of all the words I knew; turned, re-turned and arranged them, so as to enable me to express my thoughts through their medium. I know nearly one thousand words, although I believe there are nearly one hundred thousand in the dictionaries. I cannot hope to be very fluent, but I certainly should have no difficulty in expressing my wants and wishes; and that would be quite as much as I should ever require.'

I came across the above passage of Dumas' great novel under curious circumstances, for it so

¹ *The Count of Monte Cristo*, Collins Clear Type Edition, Vol. I, p. 184.

happened that I was actually dealing with a vocabulary of one thousand words at the time: in fact, I was engaged in transposing Volume I of *Monte Cristo* (up to the finding of the treasure) into a vocabulary consisting of 1,072 words, namely that taught in the New Method Readers IA to III. No other words were used (save four, *Mad, Treasure, Swim, Knife*); and even these might have been evaded at the cost of some loss of elegance.

It appears, therefore, that the Abbé underestimated the power of expression in a foreign language which is conferred by a vocabulary of only one thousand words. So far from being able merely to express his 'wants and wishes' we found him able to tell the whole story of his life—and the touching scenes of his death also—as well as the whole history of his companion, Edmond Dantes. Nor is the narrative halting and awkward; it runs smoothly and easily, and is in no way distinguishable from any ordinary tale of a similar character. It is not a synopsis, nor a 'Story of Monte Cristo, Told to Children'; it is the whole story told almost sentence by sentence from the book; such condensation as there is, is largely due, not to the exigencies of vocabulary, but to the omission of incidents in the first volume which owe their significance mainly to

their bearing on the second volume, 'The Revenge of Dantes' (with has been omitted), or else to the need of keeping the book to approximately the same size as the others of the series.¹

In this particular vocabulary all wide changes of meaning or difficulties of inflexion are listed as separate words or noted as usages; hence it is possible to estimate what labour is involved in learning to use it to its fullest extent. A child starting at $8\frac{1}{2}$ years of age would, in our opinion, take three or four years to master it. A child starting at a later age (e.g. 11), and with a better grounding in the vernacular, should achieve it in three years.

We shall indicate below certain limitations in the potentialities of this thousand-word vocabulary. For the present let it suffice to note that this vocabulary, which a child can learn in three years, is capable of telling in easy and

¹ The passage quoted above, written in a vocabulary of 1,072 words, runs as follows:

'I do not speak Greek as well as I could wish, but I am still trying to become better at it.'—'How?' said Dantes. 'How can you hope to do that in a prison with no books?'—'I wrote down all the words I knew. I turned them this way and that, and used them in every possible way, so as to make myself able to express my thoughts with them. I know about one thousand words, which is all that is really necessary, although I believe there are over one hundred thousand words to be found. I cannot hope to speak very quickly or gracefully, but I should certainly find it quite easy to express my needs and my wishes, and that would be quite as much as I should ever require.'

effective style a 50,000 word novel. If after three years' of French an English boy sat down and wrote a 'full dress' novel in easy and correct French, we may take it that the most exacting French master would be satisfied.

Now it is very probable that most boys, after three years' study of a foreign language, actually do possess a vocabulary of this size. Why, then, are they not able to do the same? We believe that the reasons are three in number:

1. They have spent a great deal of time on activities which do not help them to speak the language.

2. They have learnt a large number of words which are of very little use to them.

3. They have not fully mastered the use of the words which they are supposed to know.

Indeed, they are like a carpenter with a large box of tools which he cannot use efficiently, compared with one who is expert in the use of a few.

But the root reason is one, and one only: *The schoolmaster has never really faced his problem in teaching a foreign language. He has, on the contrary, tried to avoid it, lest he be compelled to admit the impracticability of his task.*

The Problem of the Schoolmaster

The problem of the schoolmaster is this: he

has to teach *thirty children*. Both words are significant, as will be seen if we take the opposite. The opposite of 'thirty children' is *one adult*. In dealing with one adult we know precisely why he wants the language and what he wants it for, and we have to cope with only one such set of requirements at once. An adult who comes to a teacher and asks to be taught a foreign language, does so for some specific reason (or reasons). A specific reason implies a specific vocabulary—some particular business connection, or travel (with certain specific interests). Any such specific vocabulary is capable of analysis, of tabulation, of arrangement according to relative importance of words, etc.; and, according to the time and energy which the pupil is prepared to spend, we can give him something which barely meets his needs, or which meets them liberally.

But a teacher has to deal with thirty children. Even if they were all sure to follow their fathers' footsteps he would have thirty different requirements to cope with; actually they may each of them grow up into anything. They have this only in common, that they will all probably find English useful to them in their future lives—but *what* English, for what purposes, the future alone can tell. This indeed is the problem of a teacher all through the curriculum. He is always trying to

teach something of generalized utility because he cannot foretell the future—nor could he cope with its diversity even if he could foretell it.

In the old days the schoolmaster got out of his difficulty with the help of the obliging psychologist. 'I am not teaching this subject for itself,' he could say; 'I am giving Mental Discipline, a generalized power which can be transferred to and applied to any future needs.' That theory of 'mental discipline' and 'transfer of training' has now very largely been exploded. A subject, if properly taught, does certainly convey some generalized training, but it is not necessary for it to be useless in order to convey such training. That training may be conveyed by any subject if it is properly taught; and, if by any subject, why not let it be a useful one?

In the case of Modern Languages the Discipline Theory never possessed much potency—save as an obstacle to the inclusion of the subject in the curriculum at all. If the child was to learn French (or English) for the sake of 'mental discipline,' why not make it Latin (or Sanscrit)? However, modern languages were forced in; and the schoolmaster had to think of some way of coping with his problem. He obviously could not teach the whole foreign language, and whatever part of it he taught would obviously be unlikely

to be just that aspect which would actually be needed by each one-thirtieth of his class.

He arrived at a solution. Whatever each of these thirty children might in the future want to talk about, they would *all* need to talk grammatically. Grammar is the generalized science of a language. Let them receive this generalized training and they would each be able to apply it to the particulars of their individual future circumstances.

The protagonists of the direct method destroyed the security of this position. 'Grammar,' they said, 'is indeed the "Science" of a language; a book of grammar tells one all about a language. But knowing *about* a language is not the same as knowing a language, any more than one can learn to play golf merely by reading Vardon's excellent book on the subject. Language is a skill, and it is learnt by practice. The most that any grammar can do (the most that any book on golf can do) is to save one from making mistakes and from acquiring a bad style.' The moral was that children were to learn to speak the foreign language by speaking it, with grammar as an entirely subsidiary study: furthermore (a point in which the Direct Methodite scored telling hits on the older method), they were to speak it with a correct accent.

The schoolmaster seized avidly upon the 'correct

accent.' Here was something of generalized utility. Whatever they might become in later life, whatever they might desire to talk about, they would all need a good accent. Hence all modern textbooks in Europe and America begin with a large section on phonetics, and the modern teacher is not complete without his roll of phonetic charts and his gramophone.

As regards the second clause in the direct method creed, the schoolmaster was brought face to face with his problem all over again—'Learn to speak'—about *what*? 'By speaking'—about *what*?

The obvious beginning was to start with the ordinary class orders ('Stand,' 'Sit,' etc.), and the furniture and appliances of the classroom. So far so good—and what next? Well, if the child is learning to speak French, presumably at some time in his life he will travel to France. If he is going to travel to France he must learn to speak about the affairs of travel—about tickets, and luggage, and hotels. And after that? The class of thirty children (now grown up) has safely reached Paris, and, owing to the teacher's skilful prediction of this journey, they have not been at a loss for a word all the way. So far their knowledge of French has admirably corresponded with their needs. But now one group turns to the right towards the Sorbonne, and another group produces

Baedekers and goes off sight-seeing, and another, with the firm's visiting card in hand, sets off for the business houses, and a fourth turns to the left for *Ciro's* and the *Folies Bergère*. What is the teacher to do? What should he have done?

In order to see what he actually does do the writer requested a bookseller in Oxford to collect for him all the 'modern French textbooks commonly used in English schools.' We find at this post-initial state a wide divergence as regards detail, but a general agreement as to treatment: the books all branch off into miscellaneous reading material (fables, stories, articles)—and grammar, just ordinary grammar.

Now the pioneers of the Direct Method insisted that grammar should be 'essentially subsidiary'; but here the grammar is formal, systematic, and for its own sake. The difference is not always sufficiently appreciated, and the 'Direct Method' teacher used to be accused of wanting to cut out grammar altogether. In this formal type of grammar the children are made to learn a word because it illustrates a verb-type or has a peculiar feminine: in the other the children learn the conjugation of a particular tense of a certain verb because that verb (in that tense) is inextricably bound up with what they immediately want to say.

The French child learns to associate *écrits* and the idea (wrote) just as he associates *fenêtre* and a part of his house. He learns some grammar in order to save himself from false analogies, just as the English child has to be saved from the false analogy, 'I writted it.' But such 'grammar' is very different from formal grammar; it is unsystematic; it consists merely in foreseeing immediate needs or possibilities of mistakes and anticipating them.

The primary thing in learning a language is the acquisition of a vocabulary, and practice in using it (which is the same thing as 'acquiring'). The problem is *what* vocabulary; and none of these 'modern textbooks in common use in English schools' have attempted to solve the problem. After the initial stage their vocabulary is no more than the miscellaneous collection of words which happens to be cut out by the scissors of their 'authors.'

Word Frequency as a Solution

About thirty years ago Rice¹ made a study of the comparative frequency of use in the language of various English words: his main purpose was the teaching of spelling. Other more elaborate

¹ C. A. Gregory, *Fundamentals of Educational Measurement*, Appleton & Co., 1923, p. 28.

studies followed, and have exerted some influence on the selection of words in English reading-books intended for English-speaking children. More recently the significance of such word-counts has been realized in reference to the teaching of foreign languages.

The value of word-counts in the teaching of reading is unquestioned. 'Most frequently used in books' is certainly equivalent to 'most likely to be encountered in reading'; but it is not quite identical with 'most useful in speech.' All these word frequency-lists are based upon books. In English the difference between the written and the spoken language is perhaps negligible; but this is not the case in all languages. A second objection is more important.

There are in Roget's *Thesaurus* over thirty synonyms for the word 'Loquacity': any of these is likely to be encountered in reading; but any *one* of them will serve our purpose in speaking. In framing a reading vocabulary we are endeavouring to predict what words are most likely to be met: in framing a speaking vocabulary we are endeavouring to express the largest possible range of ideas with the smallest possible number of words.

In the actual practice of textbook construction, owing to the problem of the 'Age Discrepancy in

reading material¹ the two vocabularies tend to become identical in the early stages, in which the problem of the constructor is to express stories of suitable mental age in the very small vocabulary of the beginner.

Basic English

Mr. C. W. Ogden² has attacked the problem from a different direction. Instead of trying to find which are the most frequent words, he has endeavoured to discover which are the essential ideas that we desire to express, and to frame a vocabulary which will express those ideas most economically. For example, with the help of a cube one may work out what are all the essential directions (*Up, Down, Across*, etc.). Similarly one may note the essential muscular movements (*Push, Pull, Lift*, etc.), the colours, the numbers, and so on. He attains economy by excluding all synonyms (including words whose meaning may be expressed by short phrases consisting of words already contained in the list). He also eliminates verbs. Most, or perhaps all, sentences may be expressed in two ways, either with the meaning in the verb, or in the other words. *Example*: 'I disembarked = I got off the ship.' Since verbs are the foreigner's

¹ *Bilingualism*, pp. 238 ff.

² *Psyche*, October, 1928, to July, 1929, especially January, 1929.

main difficulty, Ogden proposes to eliminate them, or rather to limit the verbs contained in his list to a small number of colourless 'operators'—mere links, such as *Is, Get, Give, Do*. His list of 850 words contains only 15 verbs. (Ogden does not suggest that this system is practicable in languages other than English.) It is claimed that with this list of 850 words any foreigner may be enabled, within a minimum of time, to express almost any idea.

The elimination of synonyms is a sound point, which had been previously noted in reference to the construction of the early stages of the New Method Readers.¹ The elimination of the verb which duplicates a simple 'verb-noun' phrase is suggestive as another device for economizing vocabulary, but we should not feel inclined to adopt it as a universal principle, nor to use the device much after the initial stages, when the strictest economy of words is necessary. The objection involves a point of style. It is certainly true that most things in English can be expressed either 'with the meaning in the verb' or 'with the meaning in the other words,' but it is to be added that the main characteristic of simple colloquial English is that it tends to get the mean-

¹ *Bilingualism*, pp. 272, 275 277.

ing into the verbs, and that a complex and heavy style tends to do the opposite.

Ogden criticises Thorndike's word-frequency list as including words extremely unlikely to be of use to the foreign student (or even to an English child), e.g. *Alfalfa*, *Annal*, *Bannock*, and for omitting such words as *Psychology*, *Physiology*, *Hygiene*, *Wireless*. It is to be noted that the words so criticised are selected almost entirely from the very low frequencies. (The three examples above are 6300th, 7700th, and 6900th.) In view of this, Thorndike might justly argue that, so far from indicating these words as useful, he has indicated them as not likely to be useful. But, as shown above, it is very questionable whether these lower stages of a word-frequency could indicate anything at all. Professor Thorndike may also retaliate by criticising Ogden's selection of 'Useful Names.' Ogden's list is specifically intended for the student of English as a foreign language; now the number of persons who study English with a view to making a trip to England or America is extremely small. There are, for example, some 830,000 children studying English in British India, while the number of Indian visitors to England per annum reaches some few hundreds. In evaluating the basic vocabulary we must, therefore, bear in mind the needs not merely of the European tourist,

but also of the Bengali, the Chinaman, the African, the Arab, and all the races of the world by whom English is valued as a source of ideas and knowledge not contained in their own literature, and as a common means of inter-tribal and inter-provincial communication, amid the babel of multitudinous local languages. Yet Ogden includes in his basic vocabulary such words as *Camera*, *Cheese*, *Compass*, *Passport*, *Piano*. To take a particular instance: to the Bengali a *Camera* is a comparatively rare luxury; *Cheese* is not a common article of diet; *Pianos* are not used because they do not suit Indian music; perhaps one Bengali in a million has to deal with *Passports*. But we look in vain for the Bengali's great interests, his *Pleader*, *Magistrate*, *Examination*, *Harmonium*, and *Umbrella*.

Frequency and Range

In constructing any vocabulary there are two fundamentally different factors to be considered, and neither the word-frequency list nor the Basic vocabulary have adequately made the distinction.

A word may derive its 'credit' (*a*) by being very common in a certain type of material, e.g. *Casseroles* in cookery books, *Carbolic* in hygiene and medicine, *Parish* in books about England and the Christian

religion; or (b) from a widespread but not very frequent occurrence in all types of material, e.g. *Pervade*, *Liabie*. (These words are all of approximately the same frequency.)

Thorndike's word-frequency list has been perhaps more criticised than any other, but in our opinion it is the best, because Thorndike allotted credits for range of occurrence; and range of occurrence is precisely what we want to know. We do not know whether the child, in after-days, will use his English to talk about cookery, or hygiene, or religion; we do not know whether he will ever go to England. We can predict nothing save that he will speak English. We must, therefore, teach him those English words which all people speak, whatever they are talking about; that is, the words which have greatest *range*.

The lower one goes in a word-frequency list the more do the credits of a word tend to be measures of mere local frequency, and the higher one goes, the more do they tend to be pure measures of range. Mere local frequency, however great, is not enough to give a word a high place in the first thousand words (else *Dollar* would certainly be there). The first thousand words are those which are enormously common in all types of material. Hence the agreement of all the different word-frequency lists at this level,

Let us return to the Abbé Faria and Edmond Dantes, and discover of what their vocabulary is composed. It contains 930 of Thorndike's first thousand words, and 90 of his second thousand; of the remaining 52 words, eleven are mere derivatives of words included in Thorndike's first thousand, ten are names of countries, and thirty-one are 'waste,' that is, words which have been drawn into the vocabulary because of their inextricable connection with the plot of some story narrated in the previous reading books (New Method Readers 1A to 3). Fourteen of these thirty-one 'waste' words are not actually used in the telling of Monte Cristo.

Thus the vast majority of their words are words which everybody knows, words which would be used equally by a silk merchant, a theatre-goer, a sight-seer, or a student. *A, Able, About, Above, Across, After, Again, Against, Ago, All, Allow, Almost, Along, Already, Also, Although, Always, Am.* It is impossible to say anything about anything without such words. A second but smaller group of their words have reference to things or acts which are a part of the common experience of mankind, whether in England, India, Africa, or anywhere else: *Afraid, Age, Air, Alive, Alone, Angry, Animal, Ate, Awake.* A third but still smaller group contains words which are

refinements of general ideas already expressed by the first, essential, group.

Such are the words which the Abbé Faria and Edmond know; almost equally illuminating is the list of the words which they do not know. They know no articles of dress except Coat, Cap, Hat, Shoes. Of foods they know only Egg, Bread, Butter, Milk, Sugar, Cake: if they dine, they must dine *table d'hôte*! The seaman Edmond Dantes cannot produce a single nautical term, except Ship, Sail, Cape, Bay, Wave. The only religious terms known to the Abbé Faria are God, Angel, and Pray. In fact, they can talk fluently and correctly about anything in general; but, place them in any particular environment, and they are at a loss for the local names and technical terms.

The Automatic Acquirement of 'Specific Words'

Experiments indicate that one tends automatically to acquire the foreign names of objects in the immediate environment and of objects closely connected with one's activities, whether one wants to or not. This is to be expected, for such words are acquired by using them, and one is always being forced to use those 'specific words'; in their own particular environments they are each overwhelmingly frequent.

Let us suppose that Dantes, able to speak English in his 'general' way, were placed on board an English ship: how long would it take him to pick up the names of the sails, and in general a 'nautical vocabulary'? A few days at the outside, knowing English. Indeed, he could hardly avoid learning them under such circumstances even if he did not know English! Let us suppose that Faria decided to spend a holiday among the 'Bright Young People' in London. Already speaking English (as he does) fluently and correctly, he would very quickly pick up the technical terminology of dinners, theatres, and, generally, of being Bright.

Here, then, is the solution of the schoolmaster's problem. He has to teach thirty children how to speak a foreign language, and he does not know what in particular they will want to talk about in their after-lives. Let him imitate the Abbé and Edmond Dantes, and teach them to speak about anything in general but nothing in particular, in the sure certainty that, once they possess a general power of speech, the technical vocabulary of their own individual activities will come to them without the effort of any teacher.

In other words, let him teach an Essential and General vocabulary, introducing in the process as few Specific words as possible.

CHAPTER VIII

THE TEACHING OF SPEECH AND WRITING

To attack the Indirect Method of teaching a foreign language is to flog a dead horse. No one denies nowadays that the Direct Method has effected an enormous revolution in the schools of those countries in which it is efficiently practised. Where previously boys could only compose laborious translations and answer problems in grammar, they can now converse with a foreigner and express their own thoughts in a foreign language.

Yet, when one reads the exposition of the principles on which this Direct Method is based, one finds it singularly unconvincing and inadequate. The truth is, perhaps, that the Direct Method did right by accident, and was unable to explain its success.

The main principle of the Direct Method is that there should be a 'direct bond' between the word and the idea without the intervention of the mother-tongue. For this reason it was argued

that the mother-tongue must not be allowed to enter into the lesson. The practical teacher found at a very early stage that such complete exclusion was extremely inconvenient. Nor does the occasional introduction of the mother-tongue do any harm; on the contrary, it may save a great deal of time. Instead of spending ten minutes in laboriously eliciting and explaining (in the foreign language, and largely at cross-purposes) the meaning of the word 'opaque,' the teacher boldly gives the mother-tongue equivalent and spends nine minutes in practising the children in using their new acquisition. Suppose that an indirect bond is formed, it will sooner or later be eliminated by the Short Circuit in Memory, which is a commonplace of every textbook in psychology. At first we remember the name of a new acquaintance by the help of some little pun or jingle on his name. As we get to know him better, the name comes to us without the help of this crutch. The crutch, being now useless and inconvenient, falls away. The human mind does not go round corners if it can cut across, any more than the human legs do.

The Direct Method succeeded by an accident of its theory. If the mother-tongue is banned from the classroom, it follows that the children must either be hearing or speaking the foreign language all the time. Instead of learning *about*

the language,¹ they get actual practice in the language. They learn to speak by speaking, to hear by hearing, to write by writing.

The Direct Method succeeded because it introduced into the modern language classroom the Principle of Specific Practice—‘Learn to speak by speaking.’

The Principle of Avoidance of Error

There is one other principle which must be mentioned here, and a very important one—the Principle of Avoidance (or Prevention) of Error. This is really only an application of the Principle of Specific Practice. The child learns to speak by speaking; he learns to speak correctly by speaking correctly; and he learns to speak incorrectly by speaking incorrectly.

Let us suppose that to fix a right bond (that is, to learn one word, or phrase, or grammatical usage in its correct form) requires ten units of work. In the same way, these ten units of work can equally well be used to fix one *wrong* bond.

Now listen to the teacher in his class. He asks for the English of ‘*She paharer nikote giyachilo*’ (which actually means, ‘He went to the mountain’).

¹ See *Modern Language Learning*, by Prof. J. J. Findlay, Chapter I (Gregg Publishing Co.). A most excellent and inspiring book.

<i>Boy</i> 1	He goes to mountain	<i>Teacher</i>	'Next!'
<i>Boy</i> 2	He gone to mountain		'Next!'
<i>Boy</i> 3	He has gone to mountain		'Next!'
<i>Boy</i> 4	He had gone to mountain		'Next!'
<i>Boy</i> 5	He was gone to mountain		'Next!'
<i>Boy</i> 6	He is gone to mountain		'Next!'
<i>Boy</i> 7	He went to mountain		'To mountain?'
<i>Boy</i> 8	He went near mountain		'Next!'
<i>Boy</i> 9	He went near of mountain		'Next!'
<i>Boy</i> 10	He went to mountain		' <i>Oi paharer</i> '
<i>Boy</i> 11	He went to that mountain		'No!'
<i>Boy</i> 12	He went to the mountain		'Yes'

Impressions of

'Went'	Various wrong forms	'To the'	Various wrong forms
6	6	1	11

Right impressions— 7

Wrong impressions—17

To put this in terms of probability of correct response, the odds are

'Evens' for 'Went' *versus* 'Has gone,' etc.

11 to 1 against 'The.'

The total effect of this teaching has been to increase by ten units the probability that the child will speak English *incorrectly*.

Elimination of Error

The situation is worse than that.

Let us suppose that we remain in this class and try to put things right again, the task will not be the comparatively simple of one teaching a right form; it will be the far harder problem of eliminating a wrong form.

It is very much harder to forget error than it is to learn;¹ far harder to get back on to the path of righteousness than it is to stay on it. Once spell a word wrong, and we all know how difficult it is to forget the wrong form and be certain of the right, to be as certain as one is of a thing in which one has never made a mistake. This is a common law; it applies to our teeth, our morals, and our motor-cars—a thing once damaged, however skilful the repairs, is never so reliable afterwards.

Tendency to Error

This brings us to the ancient problem of Original Sin. Is there any inborn tendency in an Indian child which drives him to make mistakes in English—a sort of natural wickedness?

Of course there is—the same tendency which causes him to make mistakes in his mother-tongue

¹ Repetitions required for unconditioning a conditioned response are 3 to 12, as compared with 3 to 9 required for the original conditioning (Sandiford, *Educational Psychology*, pp. 176–77). But this does not seem to allow enough for certainty and permanence. The Biblical estimate of 99 per cent. (*vide* Luke 15: 7), though on the large side, is probably nearer the truth.

(and in his political constitution), a tendency to argue by analogy. The Bengali often says, *Ami panch bochor dhoriya ekhane achi*, 'I am living here for five years.' This idiom in the vernacular will, if the child is not safeguarded against it, produce a wrong idiom in English. In the later stages, when the child is beginning to think in English, there is less interaction between the two languages; the child knows that you say things in one way in English and in another way in the vernacular, and he no longer tends to argue from one language to the other. The dangerous age is age eight or nine, when the child is just beginning to study English, and has no sense of the language, no general 'instinctive' feeling of what are and are not English forms of expression, to keep him right. So he says wrong things, and no one prevents him. And these errors are planted right at the base of his knowledge of the language; they become too deep-rooted ever to be entirely plucked out, and they poison and falsify all that comes after. The foundations of the inaccuracy of the M.A. were laid in Class III, and nothing done afterwards can eliminate the evil done then.

Now that 'instinctive feeling' of the language is not really an 'instinct' at all. It is a subconscious memory of the right form previously heard in speech or encountered in reading. When the

child thinks of a right form, he says, 'Yes, that sounds right,' because his subconscious mind recognizes it as having been met several times before in a context where it *would* be right—in a book, or in the speech of an Englishman; more probably in a book, for the child is not likely to have heard much English spoken by Englishmen.

This, then, is the main reason for starting reading some time before speech in a foreign language, and for keeping the reading always well ahead of the speech. It tends to form this subconscious guardianship, especially in that otherwise unguarded early stage in which error is most probable and most disastrous.

Diffused Attention¹

There is a second cause of error which may profitably be mentioned here, because there is an important 'moral' attached to it. The speaking of a language is a skill, like driving a car, or playing cards. Proficiency in a skill is not a matter of knowing what is right, but of *being able to do* what is right. We know that we ought not to push in the gear lever until the clutch is disengaged: we know that we ought not to trump the

¹ In this paragraph I am indebted to Morrison, H. C., *The Practice of Teaching in the Secondary School*, University of Chicago Press, second edition, 1931, pp. 165 ff.

partner's ace—and yet we do it! Why? Because we are unskilful, unpractised.

The difference between a practised car-driver and an unpractised one is that, in the case of the practised driver, a great many actions have become subconscious and require no conscious attention. The practised driver does not devote any attention to the process of changing gear; he does it without thinking: all his attention is given to the thing which really needs conscious thought—namely the traffic. But the unpractised driver has to think of everything: all the processes demand conscious attention; and while he is attending to the traffic he crashes the gears, and while he is attending to the gears he crashes the traffic.

Just so in speaking or writing a foreign language. The expert does not have to think in order to get his words pronounced (or spelled) correctly, his verbs agreeing with their subjects, his nouns in their right cases, and so on: all these things just happen subconsciously, and his consciousness is mainly devoted to the meaning he wants to express, and the right choice of the few words which need careful selection. So is it in the mother-tongue. But every one of these elements is a conscious problem to the beginner in a foreign language—and while he is giving his mind to the verb, he misspells the subject; or while he thinks

over the pronunciation of the subject, he forgets to put the verb in the right number or person. His attention is 'diffused'; he has got too many things to think about at once; he is like a juggler with too many balls in the air, and he drops one of them.

This is the main reason why boys make stupid mistakes, 'howlers,' which they put right themselves with shame as soon as the errors are pointed out to them—and are amazed why they ever made them.

What is the remedy? More grammar teaching? No; for they know the rule perfectly well. Punishment or rebuke? No, for that will merely cause the child to become self-conscious and afraid—and so still further diffuse his attention.

The only remedy is Practice—practice within a limited adequate speech vocabulary, so that recall and use of words becomes automatic, leaving the consciousness free to supervise the crucial points of accuracy and expression. Until an adequate speech vocabulary is attained, speech must necessarily (for lack of adequate words and of adequate practice with words known) be a matter of difficulty, and so of diffused attention, and so more or less inaccurate.

The root reason why in our Indian schools we never attain accuracy is that the teacher goes on

adding new words after the minimum adequate vocabulary is attained. That vocabulary consists of about 1,200–1,500 words. It is a vocabulary a shade larger than that of New Method Composition III, a shade smaller than that of New Method Composition IV. As soon as a vocabulary of that size is attained, the teacher should stop adding new words, should keep the children speaking and writing within the words they already know. If new words arise in course of conversation, no emphasis should be laid on them, nor should the children be required to remember them. The emphasis should all be on ease, and fluency, and increasing exactness.¹

The Subject of the Speech Lesson

We will assume that we are using the vocabulary of the reading-book as the basis for our speech lessons. Two alternative methods of using it are open to us :

1. To take that vocabulary in blocks, e.g. the vocabulary of one reader at a time, and build up

¹ An experimental booklet has been prepared in order to discover the technique of teaching best suited to this purpose : since it has not yet been tried out, it is not available to the public. Re-telling the substance of a Supplementary Reader is useful (e.g. the Second Series of New Method Supplementary Readers, which are provided with Guide Words in the Indian Edition) ; also telling in English a story previously read aloud to the class in the vernacular.

with these words a series of conversations on typical speech-situations likely to be encountered by the child.

2. To teach the speech-use of the words found in the reading-books and use them in re-telling the substance of the stories told in the reading-books.

The first course appears to be the more obvious one ; but there are two objections to it. The first objection is the same as that already encountered in the selection of reading vocabulary. We did not know what sort of material the child was likely to read in his adult life, and we, therefore, confined ourselves to a vocabulary which was certain to be useful whatever material he might read. So here, we do not know what are the 'typical speech situations' likely to be encountered by the child. It is quite impossible to predict anything beyond half a dozen cases, such as 'Interview for employment,' 'Purchase in European shop'; and even these are not so very certain. Every such so-called 'typical' situation involves its own specific Class 4 words, which are very unlikely to be just the words which will actually be needed when the time comes ; and anyhow they will probably have been forgotten by then, because they will be used so little in the intervening time. Thus the net result is that we shall merely add to our existing

three per cent. of vocabulary waste another three, or even six, per cent. of additional waste.

In view of this argument, it seems that it is on the whole better, at any rate in the early stages, to base our speech work on the substance of the reading-book.¹

The Lesson-Form

There are three stages in teaching the child to speak the vocabulary of his reading-book :

1. DRILL OF WORDS

1. At present the boy possesses only the bond, Word-to-Idea. We have to create the new bond, Idea-to-Word.

2. The word is repeated in the reading-book in a certain context ; there is a danger that the word may get fixed in that context, polarized by it, so that the child may not realize its larger use, or may be unable to 'detach' it. We must ensure that this shall not be the case. We must do this by making him use the word in a variety of contexts which have no connection with the reading book. These two processes can take place together in some form of oral drill.

¹ If the child starts learning to speak at an early age (nine or ten) this argument is probably sound—but not where speech is deferred till age twelve or thirteen. This point is now under investigation.

2. WARNINGS

We must inspect the substance to be re-told and detect any points in it at which error is likely to occur.

1. There are certain shades of difference in meaning which would easily be comprehended without assistance by a person reading the passage, but it is a very different matter to originate that idiom in re-telling the matter. Thus, knowing the word 'To fit,' it is easy to realize the meaning of *To fit up* a machine, but to express the idea in English words correctly is more difficult.

2. There are, as we have shown above, certain points where the child is especially apt to be misled by the analogy of his vernacular.

3. There are certain points, especially of punctuation (in reference to the subsequent writing of the passage) and also of idiom where even the teacher himself is liable to err (e.g. 'Someone' *one word*, but 'no one' *two words*; To go to the church, To go to church).

These things do not ordinarily need to be drilled or practised; it is enough to point them out.

3. SUBSTANCE-GUIDE

Lastly, it is necessary to give some skeleton of the substance to ensure that the child's account of the section may be reasonably complete and may exercise all the new words and idioms of the section.

The form of the lesson is therefore :

1. Practice and depolarization of new words.
2. Reading the original section to review the substance.
3. Warnings against error.
4. Telling the story, with the help of a guide to ensure completeness.
5. Writing.

Drill of New Words

The new word has to be introduced as often as possible so that it may be acquired by specific practice in the process of speaking.

This may be done in various ways. The most obvious method is conversation between the teacher and the class. The disadvantage of this is that it is a very slow, unconcentrated form of practice. In a conversation between one who knows the language well and one who does not, the former always tends to take the lion's share of the talking. Even if the teacher deliberately makes his share as small as possible, he cannot reduce it much below one-half, whereas the proportionate difficulty of the two functions, learning to speak and learning to understand, is probably nearer four to one. If the boy can read proficiently already—as he can in this case—he is certain to have obtained a high degree of capacity

in understanding speech, and almost no further practice is needed. Some form of practice is, therefore, required in which the child does all, or almost all, the talking.

Certain other requirements of the Practice Form must also be borne in mind :

1. The form must be such that the child will do almost all the talking.
2. The form must repeat the one new word in a context of words which are already familiar.
3. It must be so simple (or so safeguarded against error) that the child cannot make any mistakes while using it.
4. It must be so devised that mechanical repetition without consciousness of the meaning may be prevented, or at least discouraged.
5. It must be reasonably interesting or amusing, lest the children become bored.

Lastly, one such form will obviously not suffice, for that would lead to monotony. We require at least half a dozen varieties ; more, if possible.

Varieties of Practice Exercise

Up to the present we have succeeded in discovering or evolving seven distinct types of Practice Exercise, namely :

- | | |
|-------------------------|-------------------------|
| 1. Substitution. | 5. Do and Say. |
| 2. Similar sentences. | 6. Formal conversation. |
| 3. Question and Answer. | 7. Synonyms. |
| 4. Completion. | |

These, with various modifications, yield altogether about twenty varieties.

1. The Simple Substitution Exercise

My mother		a forest
My friend	lives in a pretty house in	a field
The fisherman	hut near	a garden
The man		

(N.M.C. 1/34)¹

The form yields 24 sentences exercising the word 'pretty.' This form has been much used by Palmer.² Its fault is that it does not comply with requirement 4, above; for it is obviously possible to frame correct sentences from a Substitution Form without any inkling of their meaning. Palmer advocates such 'parrot-ing' (termed by him 'catenizing') as a useful training in fluency. We cannot agree with him in this, for the Indian schoolboy is already too much given to 'catenizing.' Yet, in the earliest stages, this form is valuable because of its very simplicity; and 'catenizing' may be prevented by setting an occasional sentence for translation, or by a slight modification of the form, as shown below.

¹ The example is taken from *New Method Composition*, Book I, p. 34. (Longmans Green & Co.)

² Palmer, H. E., *Colloquial English*, Part I (100 Substitution Tables), Heffer & Co.; see also (same author) *Scientific Study and Teaching of Languages*, pp. 127, 180-83, 209, 210, 214, 215.

2. The Substitution Form, with After-questions

	father				
	grandfather		London	in	1890 (1, 2, etc.)
My	brother	was Sheriff of	Oxford		1900 (1, 2, etc.)
	sister's		York		
	husband				

(a) Of what place was my . . . Sheriff ?

(b) In what year was my . . . Sheriff ?

(c) Who was the Sheriff of . . . in the year . . . ?

(N.M.C. IV/I/F)

Each boy in turn frames a sentence and asks a question, which is answered by one of the other boys in the class.

This form prevents mechanical repetition, since the boy is compelled to think of the meaning in order to ask a question, and the rest of the boys are compelled to attend to the meaning also, in order to answer it.

3. The Conditioned Substitution Form

	get out of bed	
	put on my clothes	
	go to school	
	learn my lessons	
I shall	fall ill	to-morrow.
I shall not	go to sleep in school	
	wash my face	
	wash my neck	
	break my neck	

(N.M.C. III/55)

This form is found suitable for a great variety of words. It compels the boys to think of the meaning, and the mistakes of the 'catenizers' cause some harmless amusement.

4. Question and Answer

*Ask and answer these questions, using the word **baby** (**babies**) in each answer :*

1. Do **babies** ever cry ?
2. For what do **babies** cry ?
3. What do **babies** eat ?
4. Do **babies** eat cake ?
5. What does a **baby** do if you hit it hard behind ?
6. Are **babies** born with long hair ?
7. Have you ever seen a **baby** with a beard ?
8. Do you remember being a **baby** yourself ?
9. Were you a very beautiful **baby** ?

The first boy asks a question ; the second boy answers. The second boy then asks a question, and the third boy answers ; and so on.

'Substitution' may sometimes be used to economise space :

(a) *With answers*

What is **better** than . . . ?

' . . . is **better** than . . . '

- | | |
|---------------------------|--------------------------|
| 1. silver | 2. Being alive |
| 2. being dead | 1. Gold |
| 3. a rainy day | 4. An ass with four legs |
| 4. an ass with three legs | 5. Not talking at all |
| 5. talking foolishly | 3. A fine day |

(b) Without answers

Is your . . . **wooden**?—Yes, my . . . is **wooden**
 No, ... is not „

- | | | |
|---------|-----------|----------|
| 1. pen | 4. chair | 7. table |
| 2. coat | 5. pencil | 8. stick |
| 3. shoe | 6. hat | 9. head |

5. The Arithmetical Problem

This is a useful variety of the Question and Answer, but it is important that the sums should not be made too difficult.

I take a pencil and **break** it once: how many **broken** pieces are there?

‘There are two **broken** pieces.’

<i>Pencils</i>	<i>Times</i>
2	once
3	twice
4	3 times
etc.	etc. (N.M.C. III/2)

6. Similar Sentences*Form similar sentences*

There are two **classes** of . . . , the **class** that . . . and the **class** that does not . . .

1. Birds	sing
2. Men	work
3. People	I like
4. Flowers	smell nice
5. Fruits	are good to eat
6. Flies	bite
7. Roofs	keep the water out
8. Boys	do as they are told
9. Girls	are good: are very good

(N.M.C. III/85)

In the advanced stages this form can be made more thought-provoking by disarranging the pairs in groups, thus :

1. Birds	smell nice
2. Men	sing
3. Flowers	work
4. Roofs	do as they are told
5. Flies	keep the water out
6. Boys	bite

7. Do and Say

Turn	to	the door	‘ I turn . . . ’ etc.
	away from	the window	
		the north	
		the south	

(N.M.C. II/78)

The first boy gives the order, ‘Turn to the door.’ The second boy does so, saying, ‘I turn to the door.’ The second boy then gives an order, and the third boy ‘does and says’; and so on.

This form is a great favourite of the Direct Methodities. It is useful for verbs of action and for some prepositions or adverbs of place. But it is not a good form; for in most cases it involves boys leaving their places and the execution of large movements, which (especially in the crowded classrooms of India) waste much time.

8. Written 'Do and Say'

	I	M	V	R	B	D	O
Write	A	between			I	and	M
"	A	between			M	"	V
"	E	between			V	"	R
"	Y	between			R	"	B
"	A	between			B	"	D
"	B	between			D	"	O
"	Y	between			O	"	— (the line)

One boy gives the orders, and the rest do, and say in chorus.

This is a much more economical form in respect of time than the last one, and not less interesting.

9. Conditioned 'Do and Say'

It will be noticed that the ordinary 'Do and Say' (No. 7) is rather mechanical, the second boy merely repeating the command with a slight change of tense. The following is a useful variation :

*(Do not do it unless it is the command
of Lord Tom Noddy)*

Lord Tom Noddy	commands you to	stand
Lord Tim Noddy		sit
Mr. Tom Toddy		put up your hand
Lord Nom Toddy		put down your hand, etc.

10. The Completion Form

In its simplest form this consists in reading a

passage aloud and filling in a certain word or phrase in all the blank spaces. Thus :

Read and insert the phrase 'Such and such'

I was going to . . . a place to see . . . people. But at . . . a place on the way, I met . . . people and talked to them. They told me . . . things (which I won't tell you). And at last I went on to . . . a place where I had to be at . . . a time.

This is very mechanical, and it is better, when it is possible, to use a pair of words, as, for example, 'Manner—Manners,' or (more difficult) 'Race—Nation.'

Read and insert the word manner or manners

John has no . . . ; I mean that his . . . are very nasty. I do not like his . . . of eating, and he has an ugly . . . of speaking. He walks in an ungraceful . . . Indeed, I never knew a boy whose . . . I liked less. I am angry with his father, who ought to have taught him better . . . But the fact is that the father has no . . . himself. Yet his brother, Tom, has very nice . . .

Now read this passage, altering it so as to describe Tom's manners.

The Completion Form is sometimes followed by questions on the substance of the paragraph, or the boy is required to reproduce the substance. The paragraph itself often consists of a discussion of the derivation and precise meaning of the

word, and its various applications, e.g. 'Secure.'
(N.M.C. IV, Lesson 9.)

11. The Formal Conversation

This form is particularly useful for words whose intonation is important, e.g. exclamatory **Why!**

Boy 1. **Why**, it's John!

Boy 2. **Why**, it's Tom!

Boy 1. **Why**, John, you've got a new coat on!

Boy 2. **Why**, so I have, Tom: and so have you.

Boy 1. **Why**, you've had your hair cut!

Boy 2. **Why**, so I have; and so have you.

Boy 1. **Why**, your face is dirty!

Boy 2. **Why**, so it is; and so is yours.

(N.M.C. III/13)

It may also be used in a 'conditioned' form so as to prevent reading without thought of the meaning:

Boy 1. Will you **promise** me something?

Boy 2. What do you want me to **promise**?

Boy 1. **Promise** me that . . . A . . .

Boy 2. Yes, I will **promise** that.

No, I will not . . .

A

1. be a good boy.

2. eat nothing for a week.

3. give me your best coat.

4. wash your hands to-morrow.

5. never speak to me again.

(N.M.C. III/71)

12. Synonyms

This form is useful for teaching suffixes and prefixes.

Change the following sentences so as to use a word beginning with Dis-

1. He did not obey his father.
 2. The king was not pleased with the captain.
 3. The class was not in good order.
- etc. (N.M.C. IV, Lesson I)

It may also be used for words which have many different applications or shades of meaning.

Change these sentences so as to use the word Foul

1. This meat has a very bad smell.
 2. Leaves have fallen into the water and made it dirty.
 3. The thief used some very bad language.
- etc. (N.M.C. V, Lesson 4)

Other varieties of Practice Exercise are :¹

13. Picture questions.
 14. Answer three times.
 15. Law and applications.
 16. Classification and lecture notes.
- etc.

The Construction of Practice Exercises

The Professors of Method say to the teacher, 'Frame substitution forms and other types of

¹ See *Aids to the Construction of Practice Exercises*, obtainable from The Teachers' College, Dacca, price six annas (6d.).

exercise.' Perhaps some headmasters or lecturers of Training Colleges who have read thus far have made a note to tell their assistant teachers, or their students, to remember some of these types and to use them in their lessons. Herein I venture to differ; and here, I believe, is the reason why these forms are not in more common use. The teachers cannot do it. They cannot frame exercises of this kind for themselves—not as a general rule and a daily task.

It is to be remembered that we are exercising one particular word or idiom, the new word must occur in the question *and in the answer*, in the 'Do' and also in the 'Say,' in the fixed part of the substitution form, but not in the variables. And all words other than that under practice must be old words, words known already.

It is not really difficult to construct material within a limited vocabulary, but still it is not a task which can be performed impromptu in the presence of a class of children, nor hastily as a part of the preparation of this, and five other lessons, for to-morrow's work. Nor is it always easy to discover at the first attempt which is the most suitable of those various types of exercise for each particular word, to get the largest amount of practice possible out of the form without making it too complicated, and (now and again) to put just

that little jest in the tail of it which makes a class of happy and willing workers.

In short, it seems inevitably necessary that these practice exercises should be supplied ready-made to the teacher as a class textbook. Moreover, this has the advantage that it saves a great amount of time otherwise wasted in writing the forms on the blackboard.

* * * * *

Having practised the new words, the class proceeds to read over the section so as to review its substance.

The teacher then draws attention to the 'Warnings,' and certain phrases are said aloud by all simultaneously. The reading books are then closed, and the boys proceed to tell in English the substance of the section.

The Guiding of Thought in Re-telling

A difficulty arises here. The boy naturally tends to give a bare skeleton of the substance, and that using only words which are already well-known and rise readily to his mind. If he is allowed to do this, he will get no practice in the new words of the section (save those very few which are essential to the plot), and he will never learn to talk in a more complex manner. It is necessary to devise some means whereby the teacher may guide and control the thoughts of

the pupils without influencing their expression. This is the unsolved problem of all oral work in a foreign language.

For, if the teacher uses language for this purpose, he must use either the foreign language or the child's vernacular. And either alternative is equally objectionable.

If he uses the foreign language, he often tends to suggest the very word which he is trying to elicit, and generally to do the boy's work for him. Eliciting takes much time. And in the early stages it is very difficult for the teacher to avoid introducing unknown words into his questions.

If, on the other hand, the teacher employs the vernacular to guide the pupil's thought, he brings into his ears those sentence-forms and idioms which, just at this moment, he should most studiously be endeavouring to forget. The inevitable result is a crop of false bilingual equations and hybrid sentence-forms.

If, then, the teacher may use neither English nor the vernacular, he must either—

1. Find some method of influencing the pupils' ideas which does not involve the use of words at all (this is the ideal procedure);—or

2. find some method of guiding the thought of the class by means of foreign words already known to them, without solving for them all the problems

of syntax, accident and idiom in which he is especially desiring to practise them.

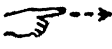
Sign Language

Pictures are, of course, one method of conveying ideas without the use of words. They are a useful method in the early stages where ideas are simple and disjointed, or where something static, e.g. a description, is under discussion. But to put a narrative into pictures is much more difficult; also it requires a large number of pictures. These are expensive if they are printed. On the other hand, few teachers draw well on the blackboard, and, if they do, they usually draw rather slowly. Lastly, it is very difficult even for a skilled artist to convey the idea of action and change in a picture, or to represent abstract ideas and qualities, e.g. 'just, justice'; 'brave.'

The curious idea occurred to us that there are (or have been) certain conventionalized picture writings, e.g. those of Egypt and China, and that these might help to solve this problem. Such a form of drawing would require no artistic talent for its execution, could be written very rapidly, and could, by metaphorical uses of signs, represent abstract ideas and qualities—as indeed they are so represented in the Chinese language.

Babu Hem Chandra Banerji and I evolved a

Picture Symbol vocabulary of 458 words. Below is part of a story written in that vocabulary.

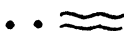






 There was a man. He went on a






 journey he came to a river he sat








 down near the river. He put his feet







 in the water. He saw a jar near





 his feet; the jar was made of gold.






 It was shut. He opened it. A little






 man jumped out of it. The man







 “Will you give me gold and

 jewels?’

(The child was not expected to guess the meaning of these signs; they were merely a *reminder of ideas known to him already*.)

(Note.—A line drawn under a picture indicates past tense of a verb, plural of a noun.)

The Sign Language was used merely as a reminder of the synopsis of the story. The teacher told the story, at the same time writing up a sign-abstract of it, and, when necessary, elucidating the meaning of the signs. The children then re-told the story, looking at the signs as a guide. After a few re-tellings all but the most essential signs were deleted, so that the ideas only were suggested, but not the form of the sentences. (It will be found that once having 'read' the signs of a known story they very easily remain in the memory.)

The system worked well in the experimental classes, and we still believe that it is a good way of guiding the reproduction of a story so as to prevent the omission of important words or ideas.

Its disadvantages are that :

1. Indian teachers often draw so badly that they have difficulty in reproducing even these simple signs intelligibly. And they usually draw very slowly.

2. Some Muhammadan teachers object on principle (though most are content to regard the signs as symbols rather than representations).

3. In the later stages (viz. after 400 words) the number of symbols becomes numerous and unwieldy. Moreover, they are inadequate to express the more complex connotations of the less frequent words.

The second alternative remains. This consists in Guide-words. As the new words of the section have already been drilled, there is less harm in using them in the guide-words; the main value of telling the story is in the practice which it gives in sentence-construction and practical grammar. The guide-words must, therefore, be non-grammatical.

Example

Original Passage

Once there was a king. Close to his house there was a beautiful garden. In the garden there was a spring of clear water; and close to the spring there was an apple tree. Now this apple tree used to bear apples once in three years; and it only bore three apples in the third year; but the apples were made of gold.

Guide-words

King. Close house, garden. Spring. Apple tree. Apples once three. Three apples. Gold.

Writing

The warnings which refer to spelling and punctuation are now written on the blackboard and emphasized. The boys write the substance of the section. The teacher supervises to prevent mistakes. This step is sometimes done in a separate writing lesson based on the previous oral preparation of two or three sections.

A section of the boy's reading-book, and the complete mechanism for teaching him to speak and write that section, is shown below :

THE READING-BOOK

The Fairies are called 'fairies' because they
Fair are very **fair**. 'Fair' is 'beautiful'; the fairies
 are very beautiful. They are very small. They
 live in the forest.

O-ber-on was the King of the Fairies. Ti-tan-
Hair i-a was Queen of the Fairies. Titania was very
 beautiful; she had long, fair **hair**. Her hair

was so fair that it looked like gold. Puck was a
 fairy; he was the servant of Oberon. Puck
 was a very nice fairy; he was very small and
Always he was **always laughing**; he loved to laugh at
Laugh others and loved to make others laugh. Oberon
 loved Puck very much, because he made him
(Like to) laugh—and Oberon **liked to** laugh.

THE COMPOSITION BOOK

Form sentences using the words Fair, Hair

My sister
 My mother has **fair hair**.
 (Names)

My grandfather has no . . .
 My mother's . . . is . . .
 Do you think . . . is . . .
 pretty?
 My grandmother has no . . .
 but when she was young
 her . . . was . . .

Ask and Answer

Would you **laugh** at a . . . ? 'Yes, I should **laugh** at
 . . . '

'No, I should not **laugh**
at . . .'

1. a duck riding on the back of an ass.
2. a poor man who has no food to eat.
3. a very fat man with a very small coat.
4. an old woman who is ill.
5. a boy being unkind to a cat.
6. a hen sitting in a hat.

Form Sentences

Dick	eating.
Jack is always	reading.
(Other names)	laughing.
	sleeping.

Ask and Answer

Do you like to . . . ? 'Yes, I **like to** . . .'
 'No, I do not **like to** . . .'

1. laugh.
2. be laughed at.
3. please others.
4. make others angry.
5. eat nice food.
6. be poor and ill.
7. see pretty flowers.
8. fall into cold water.

Warnings. (Note.—'Hair' is never used in the plural except to refer to a few individual hairs, e.g. 'I see three grey hairs on your head.')

—Are called 'fairies' (' ').—Oberon, Titania (one word, capital O, capital T).—Loved Puck very much.

Guide-words. Called 'fairies' because fair; beautiful. Small, forest. Oberon, King; Titania, Queen. T beautiful;

hair. Puck. Nice; small, laugh, make others. . . . O. loved, because and O. liked to

Experiment has tended to show that the main lines of this system are workable and effective. On the other hand, certain difficulties and defects of detail have been revealed.

In observing the experimental classes the passive attitude of the teacher was a good feature. It was not necessary for him to speak at all, except for ordinary class directions and in order to check mistakes. Moreover, the system seems to be easy to use, and can be successful in the hands of a teacher who has little or no special training.

The cheerfulness of the proceedings was another noticeable feature of these classes. A class of schoolboys is, of course, always an appreciative audience even for the feeblest of jokes. The main purpose of the attempts at humour which are a part of the system is not so much to amuse, but rather to keep the pupils in a state of alertness and to prevent mechanical 'catenizing.' Laughter, however, is not only a wholesome corrective for the careless, but also a good lubricant for all.

There was a definite increase of accuracy both in the spoken work and in the boys' written exercises. This improvement in the written work was not fully maintained in the terminal

examination. The paper set was rather long, and the time barely sufficient; as a result a number of the weaker boys felt hustled, and lapsed back into their old bad ways. We had not realized before how much harm is done by badly designed examinations in a foreign language, and on the next occasion we set a two hours' paper, allowed unlimited time for it, and gave warnings against hurry. The result was considerably better. It is no use insisting on carefulness and accuracy throughout the term if you positively encourage haste and carelessness in the examination.

One objection will be made, against which we would like to make a defence in advance—that very little is left to the initiative of the teacher.

In such subjects as History or Literature the individual touch and the personal point of view—in fact *initiative* on the part of the teacher—are essential; in these subjects the modern textbook tends, perhaps, rather to do too much. But in arithmetic and language the case is different. We are here dealing with a simple skill which is the same for all; there can be no individual taste in spelling and grammar. A skill can be acquired only by the learner's individual labour in practising it; it is the function of the designers of the course to give to the children the greatest possible return for every ounce of labour which they

expend. In a skill-subject the teacher can show his initiative only by interrupting the work of the class to insert unasked-for explanations, or by devising exercises other than those which are supplied in the textbook. Where the textbook is imperfect, or where the children encounter unexpected difficulties, this may occasionally be necessary ; but it is, naturally, the ideal of the designer of the textbook that it should not be necessary. If the exercises found in the textbook are adequate for all needs, the only initiative which the teacher can then show is to substitute for them other exercises of his own manufacture, and it is not likely that the harassed teacher will devise, impromptu, better exercises than those worked out by the textbook-maker in the quiet of his study, with unlimited time and patience at his disposal. An exercise very ordinarily involves looking through the whole vocabulary up to that point in order to discover all the articles referred to in the vocabulary which are made of wood, or all the living things which lay eggs, or all the adjectives to which the suffix ‘-ness’ can be added, etc. Apart from that, there is the care and the checking to make sure that no unknown words have been used in the exercise except the one new word that is being practised ; and also that no unknown word will be required in the answer.

In subjects of knowledge and appreciation the future lies in increasing the teacher's initiative; but in subjects of skill the future lies, I believe, in perfecting the child's instrument of learning, until the time comes when the teacher will treat the textbook in such subjects with the same respectful non-interference as we accord to the magnetos of our motor-cars.

The two main defects and difficulties which we have experienced lie in the Guide-words and the Warnings. It is very difficult to get the guide-words just sufficient and no more, and to avoid introducing into them unintentional difficulties. To get this right is merely a matter of experiment and labour.

Similarly, it is difficult to predict just what warnings are necessary and useful. This again is a matter which can only be perfected by actual further experiment.

Corrective Grammar

This brings us to one point with which we have not yet been able to deal at all up to the present. A very large proportion of the mistakes of children can, and should, be prevented by never allowing them to go wrong—that is, by pointing out the usage *before* it is used (not after), and by inserting well-timed warnings where they are required. But,

in the words of Scripture, 'it must needs be that offences come.' Some offences are due to the corruption of previous bad teaching, and some to wandering devils which occasionally enter into possession of boykind; and some are due to certain devils which permanently inhabit our language, and require protracted exorcism.

The error which has in the past been made with grammar is that it has been treated as a form of diet, when actually it is a medicine. Teachers have acted as if bad grammar were normal, and have prescribed the study of a whole book of grammar as part of the routine; whereas (as I hope I have shown) bad grammar should *not* be normal, any more than bad health is. Bad grammar is (or should be) an occasional indisposition due to a specially virulent infection, or to a temporarily lowered resistance; and the teaching of grammar should be an occasional prescription designed to rectify an abnormal state which the hygienist has failed to prevent. Like all prescriptions, it should of course be specific—specifically directed to remedy a certain defect, and its application should be occasional, intermittent, '*Sumat pro re nata*' (To be taken when required). But so systematic are the schoolmasters that they make the child swallow the whole pharmacopœia of grammar—whether as a preventive or a panacea,

I have never been able to discover. Naturally it is equally ineffective as either. And need we wonder that boys' stomachs turn at it.

I have suggested that, in our future experimental work in this direction, we shall have to discover what are the really necessary Warnings. This means that we shall have to find what are the mistakes to which children are most liable in studying the course up to any given stage. Possessing this information, it will be a comparatively simple matter to devise for each such tendency to error a specific corrective exercise (or group of exercises) written within the vocabulary of the preceding book, which may be used, *if* it is required, *when* it happens to be required, and *in just such quantity* as may be required. Thus we may supply to the teacher a sort of grammatical medicine chest from which he may prescribe to the class, or to any individual boy, according to need. ('You have perpetrated your second double negative this week, my child; you will take three doses of number 32A, "Negative Correctors."')

CHAPTER IX

THE PRONUNCIATION OF ENGLISH

The Problem of Standard

THE great difficulty in teaching English pronunciation is to *decide on a standard*.

There are four possible standards :

1. Correct according to England.
2. Intelligible in England.
3. Intelligible all over (India).
4. Intelligible within the single province or locality only.

Our actual standard at present is nearer No. 4—that is, almost no standard at all. The standard which I would advocate is No. 3—or, if it be possible, No. 2. No. 1 is quite impracticable—and, perhaps, unnecessary.

Relation to the Mother-tongue

The teaching of English pronunciation must always be related to the mother-tongue of the child. Error of pronunciation arises in those cases only in which the phonetic system of the mother-tongue does not correspond with that of English.

For example, the Bengali's mistakes in English are due to the absence from Bengali of the following sounds :

1. The long vowels—*a, i, u*.
2. The neutral vowel—*ə*.
3. The diphthongs:—he tends to simplify them, substituting *e* for *ei*, *o* for *ou*.
4. The consonants—*v, w, f, z*, voiced and unvoiced *th*.

The Hyderabadis and the Assamese have peculiar errors of their own. For example, the Assamese has difficulty over *sh*; the Hyderabadī is troubled by *w* (but in a different way from the Bengali).

It follows that the teaching must be different in every province, and provincial departments of education should produce their own courses or handbooks, based on a study of the peculiar errors of their own language-groups. They must also fix their own standards; for it is far easier for a Hyderabadī to attain Standard 2, 'Intelligible in England,' than for a Bengali, who is probably more handicapped than any other people in India in this respect.

Typical Errors in the Consonants

The consonants in which the Bengali is most liable to error are *v, w, th, f, z*.

In most of these cases the defect can very rapidly be set right by means of various simple devices ; for example, those described in *English Pronunciation for Bengali Students* :—¹

f and *v*—by raising the upper lip.

w—by doubling the *oo* sound.

th—by making the child touch with his tongue a pencil held vertically across the lips.

z—by making the child say—*D-S-oo* gradually faster and faster, till the two consonantal sounds fuse together.

The Vowels

The case of the vowels is far more difficult. With one exception (ə), the child knows the sounds already ; they are a part of his own language, but he does not know where and how to use each sound, nor does he get the length correct ; and he does not analyse the diphthongs correctly. Some system of phonetic notation is, therefore, needed.

Since the child does not tend to make a mistake over every sound, but only over a comparatively small proportion of them, it is not necessary nor desirable to use a complete phonetic transcription. It is better to concentrate on, and fix the attention on, those sounds only which give trouble. For this reason the standard phonetic alphabet is not

¹ Longmans Green & Co.

very suitable—quite apart from its difficulty and complexity; for it is not convenient to write partly in phonetic script and partly in normal. The Craigie system has the same disadvantage; for, in the Craigie system, the absence of a sign means something (*viz.* the normal sound); hence the Craigie symbols cannot be applied intermittently.

We need a system which—

- (1) can be applied or omitted at choice;
- (2) does not interfere with normal spelling;
- (3) is sufficiently simple to be mastered by the teacher of low qualifications—*and by the child himself.*

Two or three attempts were made at devising such a system. One, in which Prof. Daniel Jones kindly gave me some assistance, was excellent. It consisted of small marks, reminiscent of the standard phonetic alphabet, affixed above the letter. But it proved too expensive to print.

After considerable experiment the following system was devised. It is rendered possible by the fact that, although there are thirteen vowel sounds in English, four of these involve fine discriminations which are inaudible to the foreign ear, and for purposes of intelligibility are immaterial. The total is thus reduced to nine. This renders possible the use of numbers. All previous number systems were open to the

objection that the sign 21 might mean the twenty-first pure sound or a diphthong of 2 + 1. By reducing the vowels to nine we make all double numbers representative of diphthongs. Moreover, there is no need of a mark for length, since doubling the digit (e.g. 11 or 22) indicates it.

1.	i	as	in	Heed 11
2.	e	„	„	Head 2
3.	a	„	„	Hat 3
4.	ah	„	„	Hard 44
5.	au	„	„	Hall 55
6.	o (u)	„	„	H o le 67 (first sound)
7.	oo	„	„	Hoot 77
8.	u	„	„	Hut 8
9.	e	„	„	Herd 99

Diphthongs are indicated thus: M i ne (mah-in), Pl a ce
(ple-is). 41 21

Silent letters are indicated thus: Caught (caut).

Missing sounds are indicated thus: Be.^yautiful.

Voiced consonants, *s*, *th* and *f*, are indicated thus: These, Of.
v v v

Other irregularities are shown by writing the correct sound below: Cough_F (Cof), City_s (Sity).

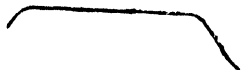
The sign \$ is used for *sh*—\$ure; and z for the consonant in Measure.

There are three^z factors in the pronunciation of a language:

1. The Sounds.
2. Intonation.
3. Stress.

Intonation

Intonation in Bengali is extremely lively; the voice rides up and down as on a switchback. In English the intonation is very level and dull.¹ There is one main 'Tune' in English, viz.



or, in a long complex sentence—



This is used for all ordinary statements, and for questions which contain an interrogative word.

Tune 2  is used only where the question is not explicit in the sentence and must therefore be indicated by an inflexion of the

¹ L. Armstrong and I. Ward, *Handbook of English Intonation* (an admirable book).

voice, usually accompanied by a gesture or facial expression (e.g. looking up at the questioned).

Tune 3 is used especially for doubt and hesitation, and consists of an alternate rise and fall of the voice.

Tune 1 covers ninety per cent. of an Englishman's speech.

The Indian tends to implant upon English the intonation tune of his vernacular. 'Chi chi' is English spoken with an Indian intonation.

It is not difficult to produce English intonation in an Indian, though of course he tends to forget it as soon as he becomes excited. Intonation has very little effect upon intelligibility.

Stress

The third element, Stress, is by far the most important in English. It is probable that a Bengali does not maltreat the unit sounds nearly so much as does a Scotchman; but the Scotchman is intelligible, even over the telephone, and the Bengali is not.

The reason for this has nothing to do with the sounds of the letters; it is that the Scotchman has the correct rhythm, and the Bengali has not.

There is in English a regular beat, like anvil strokes, perhaps not paralled in any other language.

Attempts were made¹ to obtain exact measurement of this rhythm. One of these illustrates how very regular the beat can be at times. The figures show the interval between stress and stress.

<i>Not a</i>		<i>single home</i>	.	<i>Hence -forth as</i>
		$\frac{8.3}{100}$ s.	(-)	31
<i>before</i>	<i>every</i>	<i>respectable</i>	<i>house will</i>	<i>be closed</i>
30	33	32	30	32
<i>against Eilert</i>		<i>Lovborg</i>		
30		33		

The beat is not often so exactly even in time—for this reason, that equal intervals of time are not always psychologically equal units of duration. A ‘filled interval’ of time appears shorter, and an ‘unfilled interval’ appears longer; hence, to make the two intervals appear equal, the filled must be made actually longer. Moreover, the very fact that the rhythm is so regular is an encouragement to take advantage of it for purposes of emphasis. The delay of a stroke creates an expectant attitude in the listener and rivets his attention.

‘That joy is just like our joy in the long light summer days; it has in it the foreboding of the darkness to come, and this foreboding casts its shadow over the joy of mankind.’

¹ By C. Ramachandra Rao, at the Teachers’ College, Dacca.

<i>Number of intervening syllables</i>	<i>Time interval (Sentence ends omitted)</i>	<i>Intervening syllables</i>	<i>Interval</i>
0	76	1	84* (2)
1	53	1	66
2	—	4	98
0	48	2	216* (3)
1	70		(Sentence ends omitted).
2	86		*Irregularities.
2	84		(1) has in it the forebod-
0	48		(2) ing casts.
2	77		(3) joy of mankind.
4	86* (1)		
3	86		
2	81		
1	66		

(1) Very short syllables.

(2) *boding*, a very long vowel, and emphasized.

(3) Lengthened diphthong and rhetorical pause after 'joy.'

The regular beat may be detected and measured in a 'straight' passage without any special emphasis, but (as in case 3 above) a favourite method of getting emphasis on to a word is to throw it out of rhythm. (We do not hear the tick of the clock unless it goes wrong). There is also, as a disturbing factor, the length of the stressed syllables themselves. These various factors complicate the situation in any passage involving the expression of special emphasis or emotion.

So much does the Englishman prize this rhythm of his language that he sacrifices to it a large part of his vowels, and is prepared to

throw a good many of his consonants after them, if necessary.

	Oh	no	that	is	not	so	at	all	That	joy	is	like	our
Slow	67	67	3	1	5	67	3	55	3	51	1	41	479
Fast	6	6	t	i	t		9	ll	t		i		4
	joy in the long light summer days ; it												
Slow	51	1	1	5	41	8	9	21	1				
Fast	9					t	2						
	has in it the foreboding of the darkness to come												
Slow	3	1	1	1	55	67	1	5	1	44	2	7	8
Fast					9	5r			9	9	1	9	

Notice that in six cases above some vowel from numbers 1 to 8 has been converted into No. 9, the neutral vowel. This is the Englishman's main instrument for getting his rhythm correct. The vowels in 'The,' 'That,' 'A,' 'Of,' 'At,' 'Had,' 'Have,' 'For,' 'From,' 'Them' are all weakened to No. 9 in ordinary speech, and so also are the vowels in most of the light connective words which make up so large a part of our self-expression.

The Bengali does not possess No. 9 sound. The peoples of most of the other provinces possess it, although in many cases they do not use it correctly—largely because the teachers of English do not know the elements of English phonetics.

Now this use of the neutral vowel to maintain regularity of rhythm is the essence of intelligibility in spoken English.

Supposing that the foreign student had learnt to pronounce every single English word in his

vocabulary exactly correct according to the Oxford Dictionary, yet his speech would not be English, nor would it bear any marked resemblance to English ; nor would it be easy for an Englishman to catch the drift of his remarks. For the Englishman, in listening to speech, catches the stressed syllables only, just as we read only the big type in advertisements. The Indian talks in capital letters, all of the same size. Let the Indian mispronounce all his other vowels, but maintain this rhythm, and, though his accent might be queer, he would probably be understood.

Now the telephone has a curious property, that it makes the stressed syllables relatively stronger and the unstressed relatively weaker. This is the reason why so few Indians are able to understand an Englishman speaking on the telephone.

Diphthongs

There is one other characteristic of English which proves troublesome to the foreigner. I need not tell you that English, spoken at its best, is a very sonorous and beautiful language. Many writers, including Stevenson, have expressed admiration for the English 'long vowels.' Now the fact is that most of these 'long vowels' (deceptively spelt as 'o' and 'a' and 'i,' etc.), are really diphthongs. In the passage above, out of eleven 'long vowels,'

eight are diphthongs. The teacher who knows no phonetics does not realize this. Nor does he realize that even the simple long vowels are really diphthongs also—diphthongs of the same letter coming twice. This is heard very clearly if you say a word like *darkness* to the dictaphone and then run the machine at half speed. There is a definite double beat, 'da-akness.'

Now the Bengali has no long vowels at all, and such vowels as he has are just too long for the English short ones, and too short for the long ones. Very few Indian languages possess sounds corresponding to these double vowels of English.

The Indian teacher knowing no phonetics does not realize the diphthongal nature of the English vowels. As a result, the Indian schoolboy, and adult also, speaks a curious, thin, staccato English robbed of its music.

Marked with the Correct Vowels

Perhaps the self-same song that found a path

9 3 9 2 21 5 9 47 9 44

Through the sad heart of Ruth when, sick for home,

77 9 3 44 9 77 2 1 5 67

She stood in tears amid the alien corn;

1 7 1 19 9 1 1 21 19 55

The same that oft-times hath

9 21 9 5 41 3

Charmed magic casements opening on the foam

44 3 1 21 9 67 1 5 9 67

Of perilous seas in faery lands forlorn.—

5 2 1 8 11 1 29 1 3 5 55

Forlorn, the very sound is like a bell . . .
 5 55 9 2 1 47 1 41 9 2

67 vowels, of which 23 are diphthongs (or doubled).

As recited by a Bengali.—(Differences only are shown ;
 double signs are given where the Indian sound is too
 long, e.g. sick.)
 11

Perhaps the self-same song that found a path
 1 2 3 4
 Through the sad heart of Ruth when, sick for home,
 7 1 4 7 11 6
 She stood in tears amid the alien corn ;
 11 3 11 2 3 5
 The same that oft-times hath
 1 2 3
 Charmed magic casements opening on the foam
 4 2 6 6
 Of perilous seas in faery lands forlorn.—
 1 2 5 5
 Forlorn, the very sound is like a bell . . .
 5 5 1 2

English Poetry

Most of my readers have watched an Indian drummer. He starts with some quite simple rhythm on his left hand. Then with his right hand he makes variations on it.

A*	B*
(1. 2.) / . / x . / . x . /	/ . / . / . /
(3) . / . / x . / . x / . /	1. Swēet tó rīde fórh át
(4) . / x . / . / x . / . /	évenīng fróm thě wélls,
	2. When shadows pass gi- gantic on the sand,

A shows the actual rhythm of these lines (from a dictaphone record) ; B shows their theoretical scansion.

3. And softly through the
silence beat the bells,
4. Along the golden road to
Samarkand.

Note how the elementary tune is all the time running in our minds, giving meaning to the variations; note also, in this poem, the wonderful variety of the variations made upon it.

To discover the metre of a poem is easy—a merely mechanical task. To analyse the actual rhythm—that is, the real poetry—is by no means easy.

Now what hope is there that the Indian matriculate will appreciate the rhythm of Keats or Shelley, or Swinburne or Flecker? And, if he does not appreciate the rhythm, if he reads the mere jog-trot metre, is it worth while his reading poetry at all? If poetry is to be set in the Matriculation and in the Intermediate examination, then a reasonably high standard of pronunciation should be required, such a standard as will enable the pupil to read the poems with appreciation of their rhythm—to read them *as* poetry. If that standard is impossible of achievement for the average candidate, then let poetry be made an optional subject for those only who can really appreciate it.

Let the issue be faced squarely. If English is

to be taught as a factual language, as a language of knowledge and information, and for communication on the affairs of life, then any phonetic standard will serve which is intelligible throughout the range of that communication.

But if English is to be taught as a language of poetry, doing true justice to its bell-like diphthongs and the measured tramp of its rhythm, then something more is required—very much more.

If there is hope of attaining that, let us by all means seek it.

CHAPTER X

EXAMINATIONS AND FOREIGN LANGUAGE TEACHING

It is not possible to leave the subject of foreign language teaching without saying something of examinations.

We saw, in the case of the mother-tongue, how the type of question set in the examination reacted upon the classroom teaching, producing an excess of textbook study and of grammar, and a neglect of those things which are less easy to test in examination, such as reading-ability and artistic self-expression.

Examination the Determinant of Teaching

Education is a web of Penelope; reformers do up, and examiners undo.

Directors of Public Instruction call conferences, Departments of Education lay down syllabuses, learned professors write books of methodology, Principals of Training Colleges deliver lectures and laboriously train up teachers in the way they should go; and every stitch that they do up is

regularly and effectively undone once a year by a number of well-meaning college professors in some examining University or Board of Secondary Studies. They do not really mean any harm ; they never dream of the harm that they are doing.

The Director of Public Instruction, after drawing up his syllabus, the professor after writing his book, the Principal of the Training College after completing his course of training, all set forth to discover to what extent their precepts are being put into practice. They find that they are *not* being put into practice ; and the man at the blackboard is perfectly candid about it : he says, that his job is not merely to teach English, but also to get his boys through the examination ; and, where these two aims conflict, the influence of the parents, who are his paymasters, compels him to choose the latter—the examination.

It is no use saying that examinations are an evil, or that they do not matter. They do matter ; and, if they are an evil (which I doubt), they are a necessary evil. What we have to do is to face the facts and realize that the ultimate determinant of every course is not the syllabus, nor the teacher's training, but the examination.

The teacher will always teach that which is going to be examined. And the examiner, if left alone, will always examine those things that are

most *amenable to his methods of examination*. Consequently those things tend always to be taught which are most amenable to examination.

It is a strange thing that we have courses of training for teachers, but none for examiners. As it is, professional teachers are at the mercy of amateur examiners. Most of our examiners are amateurs ; although, no doubt, many of them have had ten—perhaps twenty—years of experience of examining. They are amateurs in the same sense in which one might call a medical practitioner an amateur who has had ten—perhaps twenty—years of practice, but has made no scientific study of his subject, who has no knowledge of the ultimate effect of his drugs upon the patient, and no exact instruments for measuring even their immediate results. Some good teachers are born and need little making ; but examiners cannot rest content with merely being born (it is a pity that some of them are born at all) ; there is too much of science in their subject for that—if they do their work properly ; far more, in proportion, than there is in teaching.

Examination as 'Job Analysis'

It is not possible to alter the form of an examination by altering the teaching ; but it is possible to alter the teaching by altering the examination.

Hence the examination is the place at which to begin in any scheme of reform in the teaching of a subject.

In commencing to study the psychology of any school subject, the first thing to be done is to make an analysis of the mental functions involved. Such an analysis is not a matter of introspection seated in an armchair; it is a matter of exact measurement.

We first form an hypothesis that the subject is made up of the factors A, B, C, D, in unknown proportions. We then devise pure measures of each of these functions—that is, tests which measure each one function and, as far as possible, nothing else. In studying the results of these tests, we are careful to observe whether we have by accident included in the test some other alien factor which renders our score impure (e.g. speed of handwriting in a history paper, general intelligence in a measure of arithmetic fundamentals). This is done by correlating the results of the tests with measures of the possible impurities. We next correlate our test results with a general measure of proficiency in the subject of study, such as the aggregate of a number of general examinations, and with teachers' estimates. We correlate also with a special 'Application test'—that is, a measure designed

to reproduce as faithfully as possible the total situation to which this subject helps the child to respond in his adult life. We observe which analytic subtests agree most closely with these general measures.

Eventually it should be possible (with the help of certain statistical technique) to say that this subject is composed of so much of A, so much of B, of C, of D ; and also of E and F, factors whose presence we had not previously suspected.

Thus the first process in any exact study of the methodology of a school subject is an elaborate series of *examinations*.

Examination as a Process of Teaching

Now in testing a boy's reading capacity we set him to read a long passage of the sort which he should be able to read, and we reproduce as nearly as possible one of the sets of conditions under which he would be expected to read it. In fact, an examination is 'specific' just in the same way as teaching has to be 'specific.' But there is this difference, that by means of such experiments as I have described above, and with the help of our statistical instruments, we are able to devise an examination that *really is* specific; and we know exactly to what extent it is, or is not, so. Whereas in devising a teaching system, we can

but guess. Indeed, we can only know to what extent one method of teaching is more specific than another by means of such accurately devised examinations.

Why not, then, adopt the actual form of the examination (since it is likely to be more scientifically exact) as a basis or model for the system of practice?

This, curiously enough, is what is happening in much, if not in most, of the best and most recent teaching methods and textbooks. The actual form of the examination is taken as the basis of a system of practice. Instance the problems and exercises in the Thorndike Arithmetics, which bear a very close resemblance to those of many of the best-known measures of arithmetical ability. Compare the Courtis system for teaching arithmetic fundamentals with the Courtis test of the same function; and so also the Courtis system for teaching handwriting with Ayres' and Thorndike's measures of handwriting. So also in our own system of teaching reading we have freely drawn upon the Kansas, the Stone, the C.B. and other reading tests.

Both the lesson and the examination aim at precisely the same result—at reproducing a certain life-situation as exactly as possible inside the school. They differ only in immediate aim:

the lesson aims at enabling the boy to deal with the situation correctly; the examination aims at discovering whether he can deal with it correctly. Hence the examiner allows, but the teacher prevents, mistakes; that is the only difference.

Cram

But surely (it will be urged) this is cram; to design your teaching on the model of your examination is the essence of cram!

The word 'cram' has become a meaningless term of abuse used amongst teachers. It is an excellent example of the phenomenon which was noted in the first chapter—the use of words without definite understanding of their meaning.

Examinations may be broadly divided into two classes—tests of knowledge (e.g. a history examination), and tests of skill (e.g. a swimming test).

Cramming is a term which can be applied only in the former case, and it means that the candidate has acquired knowledge, but has not digested it, and cannot apply it. (Example—he may have learnt up his pathology as a mere book subject and cannot diagnose a disease.)

It is evident that you cannot in any sense apply the term 'cramming' to a purely skill examination. If I learn to swim in a fortnight by some patent system of 'cramming,' and at the end of

that time I can make a graceful dive and swim a hundred yards, then all one can say is that cramming is an excellent thing.

The most common cause of the phenomenon of 'cram' is a faulty examination. It is far easier to measure mere knowledge in an examination than it is to measure skill, and for this reason examiners always tend to treat all subjects as knowledge subjects. The examiner sets a written paper (e.g. on the theory of diagnosis, or the theory of swimming); the teacher very sensibly prepares his boy in what is going to be tested, viz. theory. The boy passes. He can neither diagnose nor swim. And the examiner, in his wrath, turns round and rates the teacher for 'cramming.' Whose fault was it? Not the teacher's. It is merely an example of the axiom which I propounded above—that those things always tend to be taught which are most amenable to examination.

Examination in Foreign Languages

Now a foreign language is a purely skill subject. The object of the examination in a foreign language is, not to discover whether the candidate knows certain things, but whether he can *do* certain things. In so far as the examination is really a measure of ability to do, so far is it not capable of

‘cram.’ The term ‘cram’ cannot apply. Either you can, or you cannot, do it; and it is nobody’s business to ask how or how quickly you learnt to do it.

The point at which ‘cram’ enters is where the examination is *not* a pure test of skill. The amateur examiner has confused knowledge with skill. He examines the candidate’s knowledge of a textbook, knowledge of grammar, knowledge of the history of the literature, assuming that in the process of acquiring such knowledge he will have acquired the skill of using the language. The crammer realizes that it is possible to learn up a textbook, to memorize grammar, and to get up history of literature—with judicious help from translations—without really learning the language at all; that, indeed, it is far easier to do this than to learn the language. So he does it; and the infuriated examiner points a finger at him and shouts, ‘Cram!’

If learning textbooks and grammars and histories of literature does actually produce skill in the use of foreign tongues, let the candidate by all means use these devices. It is no concern of the examiners what devices he uses. But, since it is possible for a candidate to learn texts, grammar and history of literature without acquiring real linguistic skill, the examiner should certainly *not* test these things. He ought to test whether the

candidate has, or has not, acquired the necessary skill in using the language.

He *ought* to test, but he very seldom does. He would become very unpopular if he did. A thousand objections would be raised in the Committee of Courses, in the Faculty, in the Academic Council, in the Senate, in the Syndicate—and in the newspapers. ‘What! No grammar! No textbooks!’ A thousand reasons would be brought forward for including grammar in the examination—and the textbooks, most especially the textbooks. The reason is that there is a deep and subtle conspiracy on the part of the teachers and the public to convert all language examinations from tests of skill into tests of knowledge. So long as the examination is a test of mere knowledge, one can make an impressive parade of syllabuses and question papers, with abstrusities of syntax, and Elizabethan drama, and Eighteenth Century prose, and Philology, and all the rest of it. It all looks very difficult, very advanced; and you can pass the whole lot of it knowing no more English than an English elementary schoolboy—(less, indeed, for the elementary schoolboy is far more accurate in his speech and writing of English than is the average Indian graduate).

~Indeed, I have the courage to call this type of examination by the plain epithet—‘*Eyewash.*’

Let us be rid of this eyewash and consider what it is that we really want to measure.

A Scheme of Examination in a Foreign Language

A. *Reading*

1. We want to know whether the candidate can read English rapidly, either to gain scattered information or for pleasure.

2. We want to know whether he can make out the meaning of a compressed or slightly abstruse passage requiring detailed study.

(3. We may possibly wish to know whether he can read and appreciate poetry.)

B. *Composition*

1. We want to know whether he can express his ideas in a reasoned manner.

2. We want to know whether he can narrate and describe and converse in the foreign language.

3. We want to know whether he can write a correct letter.

4. We want to know whether he can spell correctly, and whether his handwriting is legible.

C. *Oral Work*

If we include the oral aspect of the language we also want to know :

1. Whether he can pronounce intelligibly.

2. Whether he can understand the speech of a person who speaks with a correct accent.

3. We may also wish to know whether he can understand various kinds and degrees of local dialect.

Converting these requirements into terms of examination questions, we have :

A. 1. A high-speed reading test, of the C.B. or Stone type.

2. A low-speed reading test, of the Thorndike, Van Wagenen, or possibly Kansas, type.

(3. Phonetic transcription of a poem, with explanation of underlined words.)

B. 1. An essay requiring reasoning.

2. A narrative or conversational essay, or a story.

3. A private and a business letter.

(B 4. Handwriting and spelling may be judged on the above.)

B 5. We might add a question requiring the candidate to correct certain errors of English idiom particularly prevalent amongst those who speak the candidate's mother-tongue.

C. 1. A test of reading aloud.

2. A lecture with after-questions, the questions being given orally.

3. If the examination is not on too large a scale, a viva voce examination is, of course, desirable.

The Rate of Progress

With the exception of A. 3 (poetry) and possibly B. 3 (letters), this examination should be the same for every stage of the course, from the Middle school examination to the M.A. The only differences should be in vocabulary. The Middle school boy uses a vocabulary of eight or nine hundred words, and the M.A. one of eight or nine thousand words. But both of them should use their respective vocabularies, so far as they go, with absolute correctness. Both these vocabu-

laries are, as we have seen, adequate to express reasoned material or narrative, to describe, and to write letters, and sufficient also for all the types of reading material mentioned above.

If such an examination were actually set (and there is no reason at all why it should not be set), we should see the truth—whether our boys can, at the various stages of school and college, actually use the language for reading and writing and speaking. There is no need for me to describe how disastrous would be the effect of such an examination under present conditions. Can we wonder that there is a conspiracy to keep it out?

But so long as we go on allowing a false glamour in our examinations, so long do we go on compelling the teacher to manufacture false glamour in his classroom. And, because the results of the teaching are false, we have to falsify our examinations (for fear of ‘plucking’ too many candidates). And so it goes on.

There is only one way of breaking the vicious circle, and that is to set such an examination as will be at once a real test of ability in the language, and an indication of teaching method.

A Committee of Examination Types

When the Registrar writes inviting Professor So-and-so to set a paper on a certain subject, he

usually encloses with his letter a copy of last year's question paper ; and Professor So-and-so religiously sets himself to produce a replica of the said paper, merely altering the substance of the questions. No one examiner, nor one set of examiners of any one year, dares to make any drastic change in the form of the question paper. In this they are quite right, for such a sudden change, without warning to the teachers or the candidates, would not be fair.

It is difficult, if not impossible, to describe in any regulations the precise form of a question paper. Even where this is attempted, as in Calcutta University, the regulations bear very wide interpretations, and in actual fact each preceding paper is the real determinant of the next.

The consequence of this is that examination papers tend to become very stereotyped as to form, and there is no machinery for changing them.

The form of procedure which I would suggest is that a special committee should sit in rotation upon every question paper in a University or Board of Secondary Education, should consider its effect upon the teaching, and revise it where necessary. This revision would take the form of setting a typical paper. This typical paper would never actually be used in an examination ; it would be issued to teachers with a note that, with

effect from the year *so and so*, this will be the type of paper which will be set—a case of ‘Leakage of examination papers,’ but in this case an intentional leakage.

Moreover, this same special committee should also periodically review the marks of the various examinations, studying the variation of the mean and distribution in successive years, the correctness of the weighting of the various questions, and the reliability of the marking.

Summary

The examination is the inevitable determinant of the teaching. This is as it should be, since a properly devised examination serves as a job-analysis of the subject, and often gives valuable hints as to the form of the practice system.

At the present time examinations are for the most part set by amateurs; that is, by persons who have no professional knowledge of the psychological and statistical technique of examination.

The point at which such professional guidance is necessary is not so much in the actual annual setting of the papers, as in determining the form of the paper.

For this purpose a Board of Examinations Control might be the most suitable instrument.

Such a board would periodically revise the form of the question papers in the light of their effect upon the teaching, and would make a statistical study of the reliability and efficiency of the examination as a measure of real capacity in the subject.

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