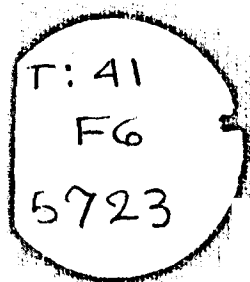


The Language Medium Question.

*The Relation between Language and Thought as illustrated
by the experience of teaching through a foreign medium.*

By C. H. SCHMIDT, M.A., B.Litt. (Oxon).
Lecturer in Psychology, Grey Univ. College Bloemfontein.



J. L. VAN SCHAİK, LTD., PRETORIA.

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SUMMARY OF CONTENTS,

PART I. DIRECT RELATION.

Chap. I.—The Nature of Language and of Thought.

A. Language: the arbitrary system of signs and symbols, the most economical and efficient for the representation of thought.

Language is either vocal, graphic or tactual.

Child's inheritance (1) Physical—a capacity for speech.

(2) Social (a) a language.

(b) a system of Relationships (knowledge).

B. Thought: Sensations, perceptions, images and ideas.

Thought implies (1) A want

(2) reproduction of Associations.

(3) A process of selection.

Chap. II.—The Part played by Language in Thought.

Words have the same function in thought as perceptions, stable-images and gestures. Words largely replace these.

Certain problems arise (1) Is thinking merely the action of language mechanisms? No.

(2) Is there such a thing as an abstract idea, or is it merely a word (Nominalism)? There is an abstract idea.

(3) Can we think without images? This can be taken in two ways, viz.:

(a) can we think using only verbal images (in consciousness)? Yes.

(b) Using no images whatever? A little.

Development of thought largely dependent on Language: compare Helen Keller and Laura Bridgman with Julia Brace.

Bilingualism and Polylingualism. How we can consecutively think in one language at a time.

Use of Mother-tongue and of Other-tongue.

PART II. INDIRECT RELATION.

Chap. III.—*The Use of a Foreign Medium affects thought by Affecting:—*

- (1) *Perception.* Words of foreign language not so easily perceived, especially at the beginning. Requires more attention.
- (2) *The strength and Variety of Associations.* Meanings more vague, words not so easily reproduced—See reaction time experiment.
- (3) *Interest and Attention.* Language requires more attention, hence subject-matter gets less—Less interest. See evidence.
- (4) *Fatigue.* Selective activity—the alternation of attention between language and subject-matter causes fatigue—Evidence and experiment.
- (5) *Expression of Thought.* A. Oral—less discussion—fewer questions and answers. B. Written—Essays weaker—less imaginative, less logical, less natural. Evidence and experiment.
Influence of one language on the other.
- (6) *Rote Learning:* Habit of rote-learning encouraged as a result of the difficulties of comprehension and expression—evidence.
- (7) *The Relation between School and Home.* School associated with foreign medium; home and outside life, which are most real to the child, with the mother-tongue. Hence school less natural—Evidence.
- (8) *Adler's Theory of the Inferiority Complex.*
- (9) *The Spread of Culture.* (1) Graphically—Reading and Writing.
(2) Orally—Discussion.

In both cases the spread of culture is adversely affected by the use of a foreign medium.

Chap. IV.—The Motives for Making a Foreign Language the Medium of Instruction.

- (1) Political—The function of language for a nation-ality. What its replacement would mean.
 - (3) Social
 - (2) Economical
- { Economical and social advantages attached to the use of the foreign medium.
- (4) Educational. (a) Advantages of bilingualism.
 - (b) Different culture requires the language in which it is expressed.
 - (c) Inadequate languages.

Chap. V.—Method of Replacing the Mother-tongue as Medium, and Conclusion.

Failure of foreign language medium instruction.

Sometimes it is necessary

How the replacement is accomplished with least harm.

(1) Study of second language—it can be commenced in Infant Class.

Compromise of direct method.

(2) Replacement should be gradual—spread over several years.

Conclusion—short summing up.

INTRODUCTION.

Fairly early in life I came in contact with the difficulties of education through a foreign medium. The only language I could speak and understand at the time, was "Afrikaans" or South African Dutch. Following the custom of the time, our governess taught us through the medium of English. In order to give us a little practice in conversation we were allowed to speak only English during the lunch interval. One day I asked whether the people in England always had to speak English, and when the answer was given in the affirmative, I expressed my sincere sympathy with them, for I found one and a half hours of it already so extremely trying.

Little did I think at the time that this very question of education through the other tongue would some day interest me so much that I should want to make a special study of it. Under Dr. R. W. Wilcocks (Stellenbosch, S.A.) I investigated "the value of Afrikaans as Medium of Instruction in South Africa," and then at Oxford, under the supervision of Dr. M. W. Keatinge, I investigated another aspect of the same subject.

Not until I began the study of the subject did I know how general this language problem was. We meet with it all over the world; in the British Empire it is found in Wales and to some extent in Scotland and Ireland, in India with its numerous vernaculars, in Canada and in South Africa; we find it in Belgium, and, in a minor degree, in Switzerland. On the borders of Germany it caused continuous trouble, namely in Alsace Lorraine, in Poland, in Hungary, and in Czecko-Slovakia; the United States with its large alien immigrant population, is not altogether free from it.

I have had exceptional opportunities for studying this subject. In South Africa, I commenced studying this subject during a transition period, when the effects of the

change were just becoming apparent. Formerly instruction had been given through the medium of English, with Dutch (Netherlandish) as second language. But this system proved unsatisfactory, so Afrikaans (S.A. Dutch) replaced Netherlandish, and the Mothertongue of the student became the medium of instruction, while the other language was studied as a subject. The natives are now allowed to make use of their own language as medium until the end of the fourth year, but after that it has to be superseded by either English or Afrikaans as medium, and is relegated to the position of a second language.

Just recently I have paid a visit to North Wales and to Belgium, and had an opportunity of discussing the subject with men who had studied it, and had practical experience of bilingual difficulties. I also personally visited a number of schools.

I have, in addition, had most of my own education through medium of the other tongue—and have taught for a term in a school where the mother-language had already superseded the other as medium.

THE LANGUAGE MEDIUM QUESTION.

CHAPTER I.

The Nature of Language and of Thought.

Before proceeding to a discussion of the language-medium-question, we should first like to state shortly the nature of language and of thought, and of the relation between the two.

1. *Language.*—Language plays such an important part in our everyday life, and has done so as long as we can remember, that we find it difficult to imagine that there was once a time in our very early youth, when we did not know a language and had to learn it. This process of acquiring the use of language took place so unconsciously, so gradually, that we were scarcely aware of it. It was never forced upon our attention. It is only when we commence to learn a foreign language and try to use it as a medium of expression, that we become aware of the fact that language is not inborn, but has to be acquired. True, we inherit a ready-made language from our ancestors; it is not necessary for us to invent one. All we have to do is to make it our own so that we can use it.

Having accomplished this, we find we have become heirs to a much larger inheritance than merely language. Language acts as the key to this inheritance, which consists of a large amount of tradition, handed down to us by our ancestors, and consisting of knowledge, superstitions, customs, institutions and so forth. Baldwin points out in his "Social and Ethical Interpretations" that "the child does not have to explore the relations of things for himself; this his ancestors have done for him, and their discoveries have been embodied in language. Then he comes upon the scene with hereditary capacity for speech, and the tendency, also hereditary, to imitate. So of course he falls into the speech of his social elders and so

finds himself, before he knows it, and without any necessity for understanding it, right in the midst of a most intricate network of social relationships, directly available to him by the use of words picked up by pleasant and playful imitation."

We can now make an inventory of the child's inheritance. He inherits:

(1) A capacity for language; this is inborn and hence does not need to be acquired. We notice that this capacity is for language in general, and not for a particular language.

(2) A particular language. This is not inborn; it is a social inheritance and has to be acquired, mainly through the process of imitation.

(3) A system of social relationships, embodied in language and preserved and communicated by means of it; this gives us our knowledge, our beliefs and superstitions, our customs and our institutions.

When we speak of a capacity for language, we mean more than the ability to use a welldeveloped organ of speech. "In very many animals for instance the monkey, the parrot and so on, the development of the organ of speech has gone far enough to enable them to clothe thoughts in words, if the thought were there to clothe." (Wundt). The capacity for language therefore depends on the capacity for conscious thinking. It is an instrument for the conveyance of thought, and, as we shall see later, largely for thought itself.

By language we usually understand the spoken (vocal) and the written (graphic) forms. There are other forms of language such as gesture language, and "deaf and dumb" language, but we are concerned mainly with the first two. The spoken form directly represents or symbolises our thoughts, while the written form represents the spoken form and hence indirectly the thoughts. The vocal language is an arbitrary system, because there is no inherent connection between the words and the thoughts or ideas, except in rare instances, for example "cuckoo" or "bow-wow," where we name an animal by

the sound it makes. There is usually a much closer connection between the signs of gesture language and the ideas they represent; for instance, when we wish a person to leave the room, we point to the door.

Our ancestors have, unconsciously, adopted the word-language system, and this has proved extremely efficient and economical. It is well adapted to our ever-increasing wants; we can always combine sounds in different ways to form new words. Our organ of speech also proves itself well-adapted for this kind of work, for its use interferes but little with our other labours. We can often work and talk at the same time; this we should find much more difficult if our hands were made the organ of speech, as would be the case in gesture language.

As we mentioned above, the connection between the words and the ideas they represent, is entirely arbitrary; consequently different people use different words for the same ideas, for instance "dog," "chien," "hund," "hond." The consequence is that we have a great number of languages, such as English, French, German, Dutch, Chinese and Japanese. The connection between the spoken and the written forms is also arbitrary, hence there are different graphic symbols for the same sounds, and therefore different alphabets, such as the Roman, the Greek, and the Chinese alphabets.

With regard to the third kind of inheritance, the system of social relationships, we can be very brief. We notice that the social tradition, which is handed down from father to son, is continually changing and growing in bulk, and is becoming more and more complex. It changes with the increase in knowledge and with the change of conditions under which we live. Much of it is common to all humanity, while much is peculiar to individual nations and even to particular groups within that nation. It is preserved and communicated by means of language.

II.—Thought.

In consciousness we have sensations, perceptions, images and ideas. There is a minimum of mental activity in a pure *sensation*. Sensations, according to Dewey, are stimuli to action, mental and physical, "they are signals to redirections of action." They have a two-fold function. They act as initiators of action. They also provide the raw material for the mind to work upon; through them the mind is brought into relation with the external world. As soon as the mind has begun to act on a sensation, we get a *perception*. In this case the mind performs a synthesis; past knowledge is brought into relation with the present sensation. As Sandiford points out, "perception is the apperceptive or synthetic activity of mind, whereby the data of sensation take on the forms of representation in space and time." For instance, when perceiving a smooth round stone, we combine our present visual sensation (of a brown or grey patch) with revived visual, tactual and kinaesthetic (muscular) sensations. In perception, then, the mind has a certain active function to perform.

Thus far animals have been able to keep pace with us. They also have sensations and perceptions. But they seem to be incapable of having conscious images. An *image* or representation is a reproduction "in an altered form, of the original percept." We must not be led into the error of thinking that a memory image is a complete pictorial copy of a sense percept. It does, no doubt, serve to call up a kind of pictorial substitute for the original sense-presentation. "Yet our images are as a rule much less complete and distinct than our percepts" (Sully). "It is more like the ghost of a percept." It is evident that to reproduce an image requires a certain amount of activity of the mind. An image need not necessarily be visual, although it usually is, but can be auditory, tactual, motor, and so forth.

An image, though less clear, definite, and steady than a sensation or percept, yet stands out fairly clearly in consciousness, and can be kept comparatively stable.

Finally we come to the *idea* or meaning, which is represented by a word. What, for instance, is in my mind when I think of the word "dog," when I fix my attention on "dog" for a few seconds? If we introspect we at first find very little more than just the word in consciousness, but attached to this word is its meaning which is made up of various images and associations, based on past experience. These associations rise up towards the level of consciousness, and influence it, although they do not actually become conscious. They tend to become conscious if we fix our attention for some little time on the word. Then we get glimpses of large dogs and small dogs, bulldogs, St. Bernards, and fox-terriers; of dogs running, standing or lying down; of dogs barking or howling, of dogs fighting or playing and so forth. In addition we might have feelings of affection or dislike towards them. All these images, feelings, etc. are the result of past experience. If we compare them with our single, stable image, we notice how extremely transitory and fragmentary they are. Some of them flash into consciousness rather clearly, others less clearly, and some just fail to reach consciousness, but with a little encouragement and perseverance, could easily be made to do so. Usually we pass very quickly from one word or idea to the next, so that very few of the associations reach clear consciousness; but the whole group of correlated images are in potential conscious existence, and make themselves felt in consciousness as the meaning; they constitute the idea or meaning; they all aid "in making up the main account."

Each meaning-group is associated with a number of other groups; in the mind there are no watertight compartments. For instance, when we think of dog, and the image of a dog which is barking comes into consciousness, this may suggest a person coming in at the gate, and this in turn may suggest visitors, and so a number of associations are called up.

Unless we are merely daydreaming (engaging in purposeless thinking) we inhibit those associations that lead

us from our subject. In the above case, if the subject of our thought is "dogs," we shall inhibit all associations of visitors and so forth that may tend to arise, and shall group all the associations around the central idea of dog.

We now begin to see the real nature of thought proper. We distinguish three elements, namely (1) a *want*: we want to have some difficulty cleared up, for instance, we want to know more about "dog." This want we can identify with Dewey's "state of perplexity, hesitation, doubt," 1) for these imply a want. (2) A *process of reproduction of associated images*. (3) A *process of selection* in accordance with our want and with previous experience. We test the associations to see if they agree with previous knowledge, and to see whether they tend towards the satisfaction of our want. In psycho-analysis we find many striking examples of the activity of this selective process, but mostly in connection with undesirable associations, which are prevented from coming into consciousness. Psycho-analysts refer to this activity as the "censor."

The process of reproduction of associated images and of selection corresponds to Dewey's "act of search or investigation directed towards bringing to light further facts which serve to corroborate or to nullify the suggested belief."

Suppose someone commences a sentence by saying: "The dog....." then all the associations that constitute the idea or meaning of dog tend to rise towards consciousness; they are potentially present in consciousness. He continues ".....of my neighbour." This immediately inhibits a number of the suggested associations, and tends to call up others. He proceeds "..... has been killed." This still further limits the possible images connected with "dog," but it adds others connected with the idea of killing. Here the mind is active in selecting those associations which suit the circumstances, and in rejecting those which do not. Sometimes none of these associations

1) How we Think—Dewey.

rise into clear consciousness, but yet they make their presence felt. When reading quickly only the words seem to enter consciousness; but each word is accompanied by the meaning—the whole group of correlated associations are potentially present.

Now consider the case of a person reading a story; suppose he is halfway through. A mass of associations has already been formed in connection with the "dramatis personae." These associations include feelings of all kinds. A want has been created; the person or persons, to whom we have taken a special liking are in difficulties; we know something is going to happen; we desire and expect that in some way they will extricate themselves; we are anxious to know in what way this will happen. As we read further new ideas are introduced and suggested; we test these ideas to see if they agree with the group of correlated associations connected with the persons. If the writer says anything that contradicts some of his former statements, the story is spoiled. The mass of past associations is present in the unconscious, but their presence is felt in consciousness. The new ideas have to conform to them.

Let us now take an example of reflective thought, which some people hold to be the only real kind of thought. A man is offered two situations, and has to choose between them. He will first find out as much about them as possible. A want has arisen, a state of perplexity. He wants to compare the relative prospects. Suppose the one offer is that of a post as manager of a business concern in the Argentine, the other that of a post in the local bank. He will commence to think about the work in Argentine; all sorts of associations will be suggested, thoughts about the school in which he studied the geography of South America, of the master who taught him, of the conditions there as described in books he has read, and so forth. But he will soon suppress the irrelevant associations that tend to arise into consciousness. The mind selects only those which throw some light on the problem in hand. He will think of his finan-

cial prospects in Argentine, and compare them with those here; he will think of the pleasant climate there; he will think of the pleasure of seeing a new country and new places; he will think of the relatives and friends he would have to leave if he went. In this way he will contrast the two alternatives. The associations that arise into consciousness are selected in accordance with the want. Only one idea at a time is in the focus of consciousness; but the others in the margin of consciousness or in the fore-conscious influence our decision. They all add to our present state of mind; they all help to decide our final decision. We are beginning to recognise more and more how little of our mental life is covered by the term consciousness. It is only the top of the iceberg that appears above the water. Most of our mental activity takes place in the "fore-conscious" or "unconscious" regions; most of the iceberg is under water. This fact is clearly demonstrated in books on psycho-analysis.

It is hardly necessary to point out how associations are formed, what part is played by instincts, by feelings, by contiguity in space and time, and by similarity. In the reproduction of these associations, factors like recency, frequency and intensity in their formation are important; also the dominant interest and general trend of thought at the moment.

CHAP. II.

The Part Played by Language in Thought.

It will now be easy for us to state what part is played in thought by sense-impressions, percepts, stable images and words. When we have a *sensation*, say of a patch of brown, associations arise in connection with it. Past sense-impressions of touch, sight, and so forth, combine with the present sensation, which acts as a nucleus for them, and we say that what we see is a smooth round, brown stone.

We now have the sense-impression plus its meaning, and we call the result a *percept*. This in turn forms a centre for further associations. The perception of the old

house in which we used to live suggests a number of memories and feelings, which may come into consciousness or may be merely unconsciously present, but yet affect the perception.

Both the sensation and the perception depend on outside stimuli; while these continue the same, the sense-impression and the percept will also remain practically the same. Consequently the percept forms a convenient nucleus for a number of associations. As long as we keep our attention on the object we are perceiving we can have all kinds of thoughts about it.

Very often, however, the object is not there to perceive. What are we going to do now? It is here that we prove ourselves more capable than animals. We are able to recall an object mentally, to have a more or less *definite stable mental image*. Now we must draw a distinction between the concrete, clear and practically stable image, and the group of fragmentary, transitory, and vague images that help to form the idea or meaning. These images sometimes do not rise into clear consciousness at all, but make their presence felt there just the same. The stable and concrete image, which Stout calls the "significant image" is usually one of the images that constitute the idea, but it has been selected and stabilised and is made to represent the whole idea. It is concrete, hence can be kept more or less clearly in consciousness. It forms a sort of "handle," just as the percept does, by which the whole idea is grasped and held. This "significant image" does not keep absolutely definite, but if we want to concentrate our attention on the idea, we constantly recall it into clear consciousness. It forms a nucleus around which the cluster of images and emotions which make up the idea, can group themselves and so enable us to crystallise our thought:

When a number of ideas are brought into relation, we often find in consciousness only these stable images passing by in quick succession. But each is unconsciously accompanied by the associated group that gives each image its meaning. Stout states this distinction between

image and idea as follows: "The image is no more identical with the idea than sensation is identical with perception. The image is only one constituent of the idea; the other and more important constituent is the meaning which the image conveys. If I think about the Duke of Wellington, the image present to my consciousness may be only the shadowy outline of an aquiline nose. But this is, of course, not my idea of the Duke of Wellington. My idea depends on the cumulative result of many complex mental processes, such as the reading of Napier's Peninsular War, etc. If I had been thinking of someone else with an aquiline nose, my mental attitude would have been very different, though I might have had the same image. The meaning varies with the train of thought in which the image occurs." 1)

It is now that we come to the function of *words* in thought. *Words serve the same purpose in our thinking process as sense-impressions, percepts, and stable images, with this difference that they are not naturally connected with the idea; they are not suggested by the objects themselves, but are arbitrarily associated with the ideas. The word synthesises with the idea, becomes part of it. It is the nucleus around which the fragmentary images and feelings cluster. "The name, being a sensuous fact, affords a convenient sense-basis for association with the mental creation called a concept, in order that the latter may be retained in memory and recalled. The name is, so to speak, a "handle" for the thought. Other kinds of imagery—visual images in particular may sometimes and with some persons, serve as handles for thought; but the verbal image would seem to be the most useful kind of handle."* 2)

If the word language is used for the signs or symbols that are employed in the process of thinking, then we must include much more than merely words in it; then we must also include sense-impressions, percepts, and

1) Manual of Psychology—Stout—Bk. IV Chap. 1.

2) Elements of Psychology (Mellone & Drummond.)

stable images. As Dewey says: "gestures, pictures, monuments, visual images, finger movements—anything consciously employed as a sign is, logically, language. Thought deals not with bare things, but with their meanings, their suggestions; and meanings, in order to be apprehended, must be embodied in sensible and particular existences they must be anchored by attachments to some physical existence.....to signs and symbols."

In the case of concrete objects, we can usually make use of the sense-impression, the percept, the definite image or the word to represent the idea. But an abstract idea is much more vague and indefinite; it is very difficult to find any image, except the verbal, to represent it. Take for instance the idea represented by the word *life*. We see life all around us, yet it is very difficult to make one of our images (except the verbal) represent the idea; it would prove inadequate.

Suppose we represent life by the image of an active man. This would tend to emphasise one aspect of life, and neglect other aspects, such as the life exhibited in plants, etc. It is best to get a neutral image, like a verbal one, which has no innate connection with the idea, and can therefore more adequately represent the whole. Besides we would have no intrinsic interest in the words as we might have in the pictorial image, and hence the meaning would not be obscured by the vivid representation. "The word is, of course, the least misleading image to accompany the concept that we can have, because its implications in comparison with a visual image for example, are so few. Very imaginative people are entirely unable to rest content with the bare word; some picture, often of a very elaborate nature, flashes up at once to illustrate it.....This liveliness of the visual imagination is obviously a stumbling block in the way of abstract thinking, for details in the image which are wholly unessential to the concept, may distract the attention from those that are essential." (Mellone & Drummond).

Word language is thus especially useful in conceptual or abstract thinking. The more abstract our thought,

the more do we make use of words; the words alone seem to come into consciousness but the meaning accompanies them; although none of the images and associations that constitute the meaning appear clearly in consciousness. It is due to this fact that some people tend to identify *thought with language*. It is well known that "kinaesthetic images (motor or movement images) of words play an enormously large part in many people's thinking; so largely do these bulk, that although we know that conceptual thinking must underlie and determine the flow, it sometimes seems as if introspection could detect nothing in consciousness save this steady verbal procession." (Mellone & Drummond). We are not therefore surprised to find serious discussions on the questions: "*Is thinking merely the action of language mechanisms?*" This seems to be the implication of the "Behaviourist" point of view. Prof. Watson, after denying this implication concludes the discussion by saying: "Thinking is then largely a verbal process; occasionally expressive movements, substitutable for word movements (gestures, attitudes, etc.) enter in as part of the general stream of implicit activity."

This view does not explain "how it is that a man may sit for an hour unable to put his thoughts into words; how we may remember the meaning of an epigram, of a poem, or of a philosophical theory, and yet be utterly unable to recall the words in which it was expressed." (Mr. Pear). Nor does it explain "James" description of the intensely active gap that fills consciousness when "we try to recall a forgotten name." It is no mere gap, a sort of wraith of the name is in it, beckoning us in a given direction, making us at moments tingle with the sense of our closeness, and then letting us sink back without the longed for term. If wrong names are proposed to us, this singularly definite gap acts immediately so as to negate them. They do not fit into its mould. And the gap of one word does not feel like the gap of another, all empty of content as both might seem."

Words certainly make the meaning much more definite and concrete, and we usually employ them in

some form or other when we think, but this by no means proves that the act of thinking and the language movement are the same.

The Nominalists again maintain that there is no such mental fact as a concept. The concept is the name and nothing more. Locke says: "General ideas are fictions and contrivances of the mind that carry difficulty with them, and do not so easily offer themselves as we are apt to imagine. For example, does it not require some pains and skill to form the general idea of a triangle? For it must be neither oblique nor rectangle, neither equilateral equicrural, nor scalene; but all and none of these at once. In fact, it is something imperfect, that cannot exist, an idea wherein some parts of several different and inconsistent ideas are put together." According to our view this difficulty of Locke disappears at once, for the idea of triangle includes all the cases he mentions, as well as the word, although they cannot all appear in clear consciousness at the same time. The concept or abstract idea is something complex; it consists of a group of fragmentary images and associations.

We can therefore agree with Mitchell, when he says that "words are not a substitute for thought, nor for the object of thought, nor for the process of thinking; they are a substitute for imagining (stable images), as imagining is a substitute for the use of our senses.

In the July, 1922, number of *Mind*, Mr. Gregory has a very illuminating article on the subject of the mental imagery in thinking. He discusses the damage inflicted by visual images on the mind and its thinking. "Turbulent, crowding images stir the mind too violently and shake it rather than guide it. Images which are simply too insistent do not stir it enough—do not pass on in the mind freely enough because they invite its attention to cling to themselves." Hence "the human mind has shown a marked tendency to abandon the advantage of seeing things without looking at them, conferred by the power of vigorous visualisation, for the advantage of thinking about them conferred by feeble

mental images which direct the mind to thought rather than themselves." It is found that uncivilised man is usually superior to civilised man in visualising power, and that mental imagery in children is stronger than in the case of adults. Carveth Read in his "Dreams and Primitive Culture" writes: "The process of imagination itself, the memory and the picture-thinking of savages, seems to be more vivid, sensuous, stable, more like perception than our own normally is." It is generally recognised that "visual images desert the scientific mind," that "thinking becomes less occupied with the visual image because it becomes more preoccupied with words." We can consequently understand why men like Mr. Watson doubt the very existence of mental imagery in thought.

How then, are the images that are associated with the word and supply its meaning, prevented from coming into full consciousness. Mr. Gregory holds that "visualisation can be regarded as a tendency to mental response by visual images which undergoes, progressively with the evolution of civilisation and in different degrees among the minds of one generation, a *process of inhibition*. The mind has a tendency to have visual images when it thinks, and an inhibiting mechanism to free thought from them." We have already discussed the existence of a mental activity which prevents irrelevant ideas and thoughts from entering consciousness, consequently we shall have no difficulty in accepting the existence of this inhibiting mechanism, which after all seems to be the same thing, and is concerned in making the thought process more efficient.

Another question which is frequently discussed is whether *we can think without images*.

There are two ways of interpreting this question.

(1) in the sense that verbal images are not really images. The question then becomes, *can we think in words without having any other conscious images?* We need not go into this question, as it follows from what we have already said, that we can think by having only the verbal images in clear consciousness to represent the

whole idea, the other images and associations being sub-consciously present.

(2) The question can also mean: *Can we think without having any kind of images in consciousness?* Can the meaning sometimes pass through mind in thought, without being made concrete by language of some kind or other, without being "anchored" by means of images. Without going into the whole question, we can state definitely that we entirely disagree with Dr. Watt, when he says that "thought, as such, is independent of all mental imagery." We shall not, however, go so far as to maintain that all thinking implies conscious imagery. It would appear that in thinking, some ideas do not have a representative image in clear consciousness, that only some of the important ideas have a verbal or other image in consciousness. The stream of consciousness, on this view is "like a bird's life; it is made up of alternations of flights and perches" (James). This is especially the case when the thinking proceeds smoothly, but as soon as a difficulty arises the images come into consciousness; then language is essential. The use of language makes our thought more clear and definite. An idea, which is not represented in consciousness, is unstable and vague. We know from experience how much clearer an idea becomes when we have found the word which represents it, and of which we could not think at the moment.

That our mental and moral development is almost entirely dependent on language, is beyond dispute. As Mellone says: "while thought is prior to language, thought could make no progress without embodying itself in language. The thought would dissolve again were it not stereotyped in a word."

Joseph states, "whether anything can be carried on without some sort of sensible signs is disputed; certainly it cannot be carried far. The signs need not be written or spoken words; they may be gestures, or sensations of touch, by which Helen Keller was taught to think."

The value of language for mental and moral develop-

ment is best exemplified by comparing the intelligence of people who have learned practically no language with those who have. Compare for instance the intelligence and moral nature of Helen Keller and Laura Bridgman the two blind and deaf girls, who were taught a language through their sense of touch, with a girl like Julia Brace, also deaf and blind, who was not educated, was not taught a language. Their mental images, of course would be entirely tactual. Helen Keller reached a very high stage of culture, as one can see by reading her "Story of my Life." In the book on Laura Bridgman we have a comparison between Laura and Julia Brace. "The two met and felt each other! But what a difference between the two! Julia is a woman grown, and unprepossessing in her appearance, because she is without animation, without vivacity, without any expression of face. She was made to understand, by placing her fingers on Laura's eyes and on her ears (by natural sign language thus) that she was blind and deaf like herself, but her countenance changed not, she manifested little interest, and in a moment or two began to withdraw from the child who clung to her, put around her neck a chain of her own braiding and kissed her. Vain impulse of affection! What a contrast in their characters. Laura wanted her affection and sympathy, and would not be satisfied without them; while Julia, having got her present, was desirous of terminating the interview and carrying off her possession. Such is the effect of education; such the consequence of evolving the moral and social nature, as has been done in the case of Laura; or of exercising only the lower propensities, and allowing the human being to live as do the brutes, within himself and for himself alone. The kind and good people who have charge of Julia Brace seem to do for her all they can do, but this is little for they *have no means of communicating with her.*" Commenting on Julia Brace, Dr. Howe says: "There is about her inexpressive face, and her attitude and demeanour, a certain passivity denoting habitual inattention to external objects, which is a very unfavourable

symptom and which contrasts strongly with the appearance of Laura Bridgman and Oliver Caswell; they are always on the alert: their spirits seem to be striving to get abroad, to go out, and to examine the relations of external things; while Julia's is content to sit within, and receive impressions made upon the surface of her body. When left alone she loses consciousness, and lies flat upon her face, sleeping or dozing for hours together.

Dr. Howe saw what the value of language was for these people and the great object was to teach them language, for upon that depended their mental development. He states that "she (Laura B.) has now become so well-acquainted with language that she can comprehend and use all the parts of speech, and although her vocabulary is still very small, it is so perfectly familiar, as to be to her exactly what speech is to others,—*the vehicle for thought.*"

Bilingualism and Polylingualism.

It often takes some time before a child sees that an arbitrary sign or symbol can be substituted for the natural one. This is exemplified in the case of Laura Bridgman and Helen Keller. Dr. Howe writes that after weeks of patient teaching it suddenly seemed to dawn on her. "I could almost fix upon the moment when this truth dawned upon her, and spread its light to her countenance." Helen Keller suddenly realised this fact one day when the water was trickling over her hand and Miss Sullivan spelt the word "water" into her hand. After that they showed great interest in learning this new language, which was so much more useful than the natural sign language.

It is evident that instead of associating only one word with an idea, we can associate two, three or more with it, for instance, in addition to dog (vocal and graphic) we can have hond, hund, chien. Hence it becomes possible for a person to become a bilingualist or even a polylingualist. It follows naturally that it will be easier for us to make use of that language which we have been in the habit of using from the beginning, whose words have

become more intimately connected with the ideas, and where we have a completer set to correspond to them.

What happens to the other words when we make use of the one? Evidently they then form part of the idea; they are included among the transitory and fragmentary images, and are ready to be called up if wanted. Hence the possibility of translation; hence also the fact that when we cannot hit upon the right word in one language the corresponding word in the other language tends to arise. We can then make use of this word to keep the idea before us, while we attempt to call up the word. This is what we always do when we begin to study a foreign language. We first think of the words in the mother-tongue, and then translate them. We have to beware, however, of forming a mental habit of this method, and making use of translation when we know the second language well enough to call up the words directly.

The question now suggests itself, how is it that we can uniformly think in one language without getting a mixture of words from the different languages? The answer is simple; we explain the fact by means of the *unconscious background* and the *selective activity* of the mind. The factors in our unconscious background are (1) *the subject matter*. We are accustomed to treat certain subjects through medium of say "Afrikaans" (South African Dutch), others through the medium of English. When we discuss them, the language with which they have become associated and in which we have acquired certain habits of expression, tends to arise. This is, however, the least important factor

(2) *the Surroundings*. We all know that when in a foreign country or when speaking to a foreigner in our own country, the foreign language seems to come more naturally. It is strongly associated with the country and the people. I find it difficult to speak English to the people with whom I have been accustomed to speak Afrikaans (South African Dutch) and to speak Afrikaans to people with whom I am accustomed to speak English, even though they can speak both languages. In some

cases I am inclined to mix up the two languages, to jump from one to the other. Afrikaans or English or both have been associated with different people; a definite background has been formed.

The chief factor, however in the unconscious background to guide the selective activity is (3) *A purpose*. We decide to speak in a certain language, and select our words accordingly. The purpose is present in the unconscious all the time, especially in the case of foreign languages. The process of selection also works unconsciously.

We are thus enabled to think consecutively in one language. It is only when difficulties present themselves, when we cannot think of the word, that the other language tends to make its presence felt.

The mothertongue we know best; the words have already become very strongly associated with the meaning; in fact they have become a very important element in the idea, because they are always reproduced in consciousness to represent the idea. The words of the other language have not entered so prominently into the constitution of the idea or meaning, and hence the selective process of the mind has to be specially active to reproduce them. Often we are ignorant of the foreign word for the idea, and are unaccustomed to the manner of arrangement of the ideas and thoughts. The consequence is, as most of us have experienced, that when a foreign language is spoken, we have to listen very carefully to make out the sounds and follow the meaning. It is worse still if we try to express our thoughts by means of this new medium. The less familiar we are with a language the more must we concentrate our attention on the forms of the words or language, that is, on the medium of expression, with the result that the subject matter can only receive very little attention.

In the next chapter we shall go fully into this matter, and bring in some evidence to show how our thought is affected by use of a foreign language as medium of expression.

PART II. INDIRECT RELATION.

CHAPTER III.

How the Use of a Foreign Medium affects Thought.

Now that we know what thought is, and what part language plays in the process of thinking, we shall proceed to examine how the use of a foreign medium in education affects thought and mental development. We name this second part "Indirect Relation," because we are going to examine how the foreign medium affects perception, fatigue, interest, etc., and how through these, it affects thought.

I. Perception.

If we speak about the perception of a word, it implies that we already have some associations in connection with the word, and that these associations are unconsciously present. If this were not the case, we should merely have a sensation of the word. The more associations we have in connection with a word and the stronger they are, in other words, the more familiar we are with a word, the easier will it be for us to recognise it. "The amount of sensory stimuli necessary to arouse perception becomes less and less with time," or rather, with a better acquaintance. "In reading we at first perceive minute differences between words and letters, but with practice a mere ghostly outline of a word is sufficient to give us the meaning." 1) We always have to linger a little over an unfamiliar word, while we just glance over a familiar one. If a slight alteration be made in a familiar word, we often do not notice it. So Pillsbury found that if he showed the word "felly" for a brief interval of time, after showing a few words ending in ly, it was usually read as "folly." The "apperception mass" or group of associations is so strong that it makes us interpret our sensation wrongly.

1) Chap. on Perception in "The Mental and Physical Life of School Children." (Sandiford).

"A foreign language is more slowly perceived than one's native tongue. Cattell, experimenting on himself, found that reading as quickly as possible, the following times, given in thousandths of a second, were necessary for the perception of each word:

English	138
French	167
German	250
Italian	327
Latin	434
Greek	484." 1)

This, of course refers to visual perception, but the same applies to auditory perception. When we first hear a foreign language, we cannot distinguish any words. "The whole thing seems, in the words of James, to be just 'one great blooming, buzzing confusion,' out of which the separate words emerge only after many experiences of them. And many observers maintain that in listening to a speech in the mother tongue, we do not hear the whole of the sounds made. We perceive vague 'slurred' sounds and fill in the meanings from past experiences." 2) When in a foreign country, we at first do not distinguish any separate words; afterwards we know two or three, and then it becomes easier to distinguish and recognise. One can then often infer the meaning from one or two words. In Belgium a man explained to me in rather fluent French which turning I had to take. When he had finished explaining, it suddenly occurred to me that he had mentioned the words "deux femmes." From these two words I could infer that I had to turn where two ladies were walking. The more familiar one is with a language and with the speaker, the easier it is to perceive the words and follow the meaning.

How will this affect education through a foreign

1) Chap. on Association in "The Mental and Physical Life of School Children" (Sandiford).

2) Chap. on "The Development of Language in Children in Physical Life of School Children (Sandiford).

medium. At the beginning the child will certainly have to pay more attention to the perception of the words than he would if his mother tongue was used. Consequently less attention can be bestowed upon the subject matter.

What happens later? If the child continues to have his education through the other tongue, he will soon perceive the words, especially the written ones, more easily than those of his mother tongue. But would he not have perceived the words of his mother-tongue still better if he had received his education through it as medium? We are inclined to think that he would. The difference, however, would not have been so great as one might imagine, for we use a great many set phrases and words over and over again in different connections, and it is just at intervals that less common words and unknown words are introduced; at least this is the case in the higher classes.

It is clear that our study will be affected; we shall have to pay more attention to the words in order to perceive, to recognise them; consequently less attention can be devoted to the subject matter. This will affect our reading too. We shall have to attend closely to the written forms; the meanings will have to be neglected. There will be a tendency to read words, without following the meaning.

2. *Strength and Variety of Associations.*

There seems to be an infinite number of associations present in the mind. Each idea, as we have seen, consists of a group of associations, and ideas are again associated together to form larger groups. There are two kinds of associations: (1) between the word and the meaning, which it represents, and (2) between different words and meanings. The first depends very largely on our familiarity with the language. It is essential that the words which represent the ideas, shall be very strongly associated with them, in fact shall be the most prominent associations in the ideas. Now it is evident that the words of the mother-tongue are most strongly associated with

the idea. The less acquainted we are with a language, the weaker are the associations. Dr. Howe explains how Laura Bridgman, when learning the deaf and dumb language "laboured for a long time under a difficulty like that experienced by persons learning a foreign language; she had to make an effort to recall the sign with which she was to associate an idea; but now the association is not only spontaneous and immediate, but, as with others, apparently necessary." 1) We find that the associations of the ideas with the words are stronger in the mother-tongue, even if the other tongue was used as medium. In South Africa I performed a few reaction time experiments on Afrikaans-speaking University students, who had practically all their education through the medium of English, but have mainly used Afrikaans for all purposes outside the school.

The time taken to respond to the stimulus depends (1) On the perception of the word, used as stimulus, (2) on its association with its meaning (3) on their association with another word and its meaning; (4) on the expression of this word.

Reaction Time Experiment. I made two kinds of tests :

(a) *Opposites test*: I give a word, and the subject has to give its opposite, e.g.
 high..... low
 cold.....hot
 strong.....weak etc.

(b) *Fourth proportional*: I give three words and the subject then has to give a fourth, which stands in the same relation to the third, as the second does to the first.

e.g. grass : green : snow : white.
 sword : steel : boots : leather.

Then I measure the reaction time, that is, the time

1) Laura Bridgman (Maud Howe & Florence Howe Hall).

that elapses between the giving of the word, and the answering thereof.

In each case I used about 15 English and 15 Afrikaans words. To make sure that the words of one language were of the same standard as those of another, I sometimes used their translations. I chose no technical words, only those that would be used in ordinary conversation.

The results were as follows:—

Subject.	Average reaction time.		Mistakes %		No Answer %	
	Afrikaans	English.	Afrikaans	English.	Afrikaans	English.
1	1.36 sec.	1.51 sec.	0 %	4.0%	0 %	2.0%
2	1.12	1.69	2.0	6.0	2.0	0.
3	1.03	1.40	0.	2.0	4.0	8.2
4	1.41	1.01	0.	0.	3.8	4.2
5	1.06	1.19	0.	0.	0.	8.3
6	1.20	1.26	3.6	8.3	7.1	12.5
7	1.18	1.25	4	0.	4.2	11.5
8	1.02	.99	0.	0.	8.7	3.8
9	1.37	1.44	4.2	8.0	0.	12.0

In the case of persons 1, 2, 3, 5, 6, 7, 9 who are all Afrikaans speaking but have had their education through the medium of English, we have shorter reaction times, less mistakes, and fewer words unanswered when Afrikaans is used. Number 8 is an exception and number 4 usually speaks English at home and lives in English surroundings, and thus also thinks more quickly in his mother-tongue.

The test also proves how quickly one goes from one language to the other, usually from the other tongue to the mother-tongue, when the right word does not suggest itself at once, for instance "mak" Afrikaans for "tame" was thought of as the opposite of "wild," "fluks" (industrious) as the opposite of "lazy," and "stadig" (slow) as the opposite of "quick," while in the case of the English speaking subject "koud" (cold) suggested "coat."

One often notices the weakness of associations, when a foreign language is the medium, by the wrong use of words. (a) Sometimes the idea is definite and clear, but

the word which should express it, is unfamiliar, and then a similar word is very often used. So, for instance, a little child in Wales wrote "outmanured" for "outmanouvered," while another, reciting "The Village Schoolmaster," said that "e'en though *vanished*, he could argue still." (b) At other times the word is there, but the meaning attached to it is vague and indefinite, or quite unknown. So one little child, on being questioned why he was so late, answered "I am dead on the road." 1) His little sister, who was present, supported this statement. When questioned in Welsh, it was discovered that he had felt ill along the road. The meaning, attached to the word "dead" included much more than it should have done. In one class an extract was read from a newspaper about an alligator at the zoo. The following sentence occurred: "the cold froze his ardour." Nearly all the children concluded that "ardour" was some part of the body. (c) sometimes it may happen that both the idea and the word are known, but they are not associated together very strongly; the word is not yet a prominent association in the idea. Very often we cannot think of the right word to express our idea; another word is suggested, but it does not satisfy us; it does not exactly represent the idea. One day, trying to think of a certain word, I was unable to do so. The word "protagonist" suggested itself, but it was not the exact word for which I was looking. Afterwards somebody used the word "exponent," and I at once recognised it as the right word.

An examiner of Training College students in South Africa told me that on marking certain papers, he was led to suspect that some of the candidates had not expressed exactly what they meant. They were Afrikaans speaking students and had written through the medium of English. On questioning them in the "viva voce" examination, his suspicion was confirmed. In their hurry

1) Evidence of Mr. B. G. Evans before the Royal Commission on Education (1886-1887).

they could not always find the right words, and so had to express their thoughts in language that more or less suggested the meaning. We notice at once what a strong motive this fact is for learning things by heart, in other words for "parrot work."

We find these phenomena in the use of our mother language as well, but in the use of the second language they are far more frequent.

It is evident from the experiment and the above examples that we think more quickly and easily in the mother tongue, even though much time and effort was spent on mastering the other. Mr. Barrow says that in India "quite a large proportion even of those who have spent six years at colleges, still express themselves with great difficulty in English, and often commit gross grammatical blunders." 1) Hence thought, which is so largely dependent on language will be adversely affected, and the child's intellectual development will proceed more slowly.

3. *Interest and Attention.*

Interest and attention are usually so closely connected that we shall treat them together. The one is usually accompanied by the other. The more we are interested in anything, the more closely we attend to it. "But the same cannot be said of the converse of this proposition—that attention is always accompanied by interest, nor is it universally true that the greater the attention, the greater the interest." 2) Attention to a subject, however, will usually cause us to become interested in it. Standiford holds that "permanent interests are only developed under the stress of voluntary attention." 3)

1) Medium of Instruction in "The Report of Calcutta Univ. Commission (1917-1919).

2) Elements of Psychology (Mellone & Drummond).

3) The Mental and Physical Life of School Children (Sandiford) Chap. xiii.

In interest the feeling element predominates. "Interest is a feeling of pleasurable (or painful) excitement. 1) Attention again is predominantly conative; Stout maintains that 'attention is the essential form of all mental activity.'" 2) It is selective activity; it "serves to make a sensation (or any psychical phenomenon) a prominent and for the moment a supreme element in the stream of consciousness. 3) When, for instance, we pass a shop window, an image of the whole falls on our eye; something special attracts our attention; this alone is brought into clear consciousness, into the focus of consciousness. The other objects mainly add their share to the total impression. If we attend to a thing, we thereby bring it clearly into consciousness, keep it there, and are thus enabled to familiarise ourselves with it.

The value of interest and attention for the teacher is obvious. "No part of the mental mechanism is thus of more practical interest to the teacher than the process of attention." 1) "It has been recognised for many years that the question of interest is one that is of great importance for the teacher.....children will work well at things that interest them, and very badly at things that have no interest." 3)

Interest and attention depend very largely on already existing groups of associations. If we can tack a new idea on to a strong group of associations its survival value is immensely increased; we also tend to notice only those things which are connected with strong associations. For instance, if a farmer, a botanist and a geologist pass over the same ground they will notice totally different things. The farmer will say that the fields are excellent for grazing or ploughing purposes, the botanist will examine various kinds of weeds and plants, and perhaps call our attention to some very insignificant looking plant—a plant which is new to him, but of special interest because he

1) Teacher's Handbook of Psychology. (Sully).

2) Manual of Psychology (Stout)

3) Psycho-analysis in the Class Room. (Green).

can connect it with the large group of associations. The geologist will hardly notice the plants; he will look at the kind of stones, the formation of the mountain, and so on.

When a child comes to school, we should try and make use of the interests and associations that have already been formed. He already has a number of language associations, and a store of knowledge obtained through this language and associated with it. The natural method would be to make use of these associations and interests, and not to start at once with a new language and new subject matter. This fact has given us such maxims as "proceed from the known to the unknown" and "it is wrong to teach the unknown through the medium of that which is equally unknown." Beginners should at first practise on material that is familiar to them. For example, when a Polish boy is learning to read or to write his letters, he should not be taught to do so from a book written in Latin, Greek or Arabic, but from one written in his own language, that he may understand what he is doing." 1)

How does the use of a foreign medium affect the process of thinking? It is evident that when we are unfamiliar with the medium of expression and to some extent of thought, we shall have to pay special attention to language, and hence less to the subject matter. We constantly meet with language difficulties; have to attend to them very carefully until the difficulty is overcome, then we can resume our train of thought. Our thought will consequently be rather disconnected and our interest will tend to flag, for it largely depends on our being able to attend uninterruptedly to the subject matter.

Similarly if we read or listen to something which is being expressed through a foreign medium, we have to attend very carefully in order (1) to perceive the words (2) to associate their meanings with them and (3) to follow

1) The Great Didactic of Comenius (Keatinge).

the meaning of the whole. This is made difficult by a different order of the words, and also by the fact that some unknown words occur, and we have to attempt to infer their meaning from the rest of the sentence. The result is that we are unable to follow the whole argument, much less to examine and criticise it.

Practical experience bears out this fact; teachers and inspectors have emphasised its great importance. The Toronto education department, however, thinks otherwise, namely "that the interest in the involved medium and the necessity of paying attention more strictly to the forms of an alien language tend to fix ideas in the child's mind with a special vivacity which is absent when ideas are communicated in the mother-tongue. These considerations make up largely for any supposed handicap." I am not over confident that any special interest attaches to a foreign language, when that is used as medium. While the argument that when we have to attend closely to the language forms, the subject matter will be better remembered, seems illogical. It is evident that the more attention we bestow on the language forms the less can we bestow on the subject matter. The attention has to "oscillate" between the language and the subject matter, instead of being focussed mainly on the latter.

As we mentioned above, experience tends to support our view. So Mr. Loram writes: "The serious elimination of pupils from native schools and the high percentage of failures in the departmental examinations are largely due to the insistence upon English as the medium. Pupils who fail at the Inspector's examination are naturally inclined to leave school, while even those who survive become 'tired,' of a curriculum which, because of its reference to foreign things in a language imperfectly understood, makes no appeal to them." 1)

In a questionnaire, which I sent to various teachers who have had practical experience of bilingual educa-

1) The Education of the South African Native (C. T. Loram).

tion difficulties, I asked the question "How does a foreign medium affect interest and attention?"

(1) Of the teachers in South Africa 40 answered that the children showed more interest when the mother-language was the medium; a few had no experience of the matter, but no one maintained that they were more interested when the other tongue was the medium. I would just like to quote a few typical answers.

"They certainly are more interested, they follow the ideas more easily, and are then better able to assimilate them to their past experience."

"It is certain that they show more interest. Speak English or Netherlandish, and he merely stares at you. Speak Afrikaans and his eyes sparkle like those of a snake; he smiles and sits upright. You clearly see the interest when you use Afrikaans, by the number of questions that are put to you. They all want to take part in the lesson by telling their own experiences, with the result that you often have to cry 'halt!' and tell them that we can sing together but cannot all speak at the same time."

"Naturally. For instance, to take History through the medium of English—say in St. VI—is almost a hopeless task."

"Mother-language explanation is more natural, and therefore more comprehensible and interesting."

I may add that my own experience supports this view. I gave mathematics to an Afrikaans speaking class through the medium of English. If I insisted on English, the children usually remained quiet; while if I allowed them to express themselves in Afrikaans using the English technical names, they asked all sorts of questions, and answered most freely. They would for instance say "Meneer, ek kan my 'figure' nie reg kry nie; moet dit nie 'n 'right angled triangle' wees nie?" and so on. By being able to take more active part in the lesson, they naturally exhibited more interest too, and were 'all attention.'

(2) The majority of the teachers in Wales who answered

my questionnaire agreed that interest and attention were more easily sustained when the mother-language was the medium. Some, however, did not quite agree with this, and held that it depended largely on the teaching. So one man writes: "In the hands of a competent teacher it should rather improve than diminish both, for children have a natural and healthy ambition for acquiring new grounds."

If the second language was the only "new ground" with which the child came in contact, and which he had to cover, there might be some truth in the statement. But if the child is introduced to any new subject matter, and if he can be made to take an intelligent interest in that work, which is not included under the heading of 'Second language study,' then he will not want to be bothered with the inevitable language difficulties of a foreign medium. He will then want to satisfy his curiosity as quickly as possible and will become impatient when language difficulties interfere. If the problem or subject matter is not straightforward, but requires a lot of attention and thought, and if, in addition to this we have serious difficulty with our medium of communication, and, in fact, of thought itself, and so have to withdraw some of our attention to overcome the language difficulties, we may find the task too difficult, and so give it up in despair. And this is what often does happen, with the result that the children are led to do parrot work. They cannot follow the thread of the argument in the other tongue medium without great effort, so they give it up, and try to learn it off by heart, without thoroughly understanding it.

Some of the teachers told me that they often started to give a lesson, say on Geography, in English. After a time they would notice that the attention was beginning to flag. If they then changed over to Welsh as medium, a sigh of relief seemed to go round. There would be renewed interest and attention. This fact I noticed myself. In one class two little English girls seemed to be far brighter and more interested than the others. Suddenly

the medium was changed. Then most of the others seemed to wake up, and show a lively interest.

(3) From India we get the same evidence: "A lesson appeals more to the head and heart of a boy, and, thus becomes more effective when it is conveyed through a medium in which the boy is fitted, by tradition and environment, to express his own thoughts, otherwise education becomes parrot-like cramming rather than intelligent understanding." 1) (Datta). "It becomes very profitable and interesting if lectures are delivered in the vernacular rather than in English." 1) (Das Gupta).

(4) Mr. Mennekens (Belgium) writes "That the students of average ability, who form the large majority, are better able to manipulate (verwerken) the subject matter and to take an intelligent interest in their lessons, when the subject matter is presented to them in their own language, and they have no need first of all to struggle with the word, which must open the way towards knowledge." 2)

If we wish to get the children to take a keen interest in the subject matter, and not merely in the language forms, and if we want them to attend closely, we shall evidently gain much by employing the children's home-language as the medium of instruction. The mother-tongue is certainly a valuable aid towards maintaining interest and attention, even though it is by no means the only condition.

4. *Fatigue.*

We saw that conation plays a very important part in thinking, especially in constructive thinking. There is a selective activity which largely regulates what will come into consciousness. A number of associations arise, and

1) The Medium of Instruction—Calcutta Univ. Report. (1917-1919).

2) Nota betreffende Het Onderwys in de Tweede Taal in de Lagere Scholen te S. J. Molenbeek. (Mennekens).

this activity determines which will come into consciousness, or rather which shall not come into consciousness. Fatigue is probably caused by this selective activity. The process of attention is essentially one of conation, of selective activity. It is thus closely connected with fatigue. In fact, by measuring "a child's power of attention both in a short and in a more prolonged effort, as attending to a series of syllabic sounds," one can form "a rough clue to differences of brain energy," 1) that is, of mental endurance. Concentrated attention results in fatigue, and fatigue makes any duration of prolonged concentrated attention impossible. The less interesting the subject matter is, the greater is the effort required to keep on attending to it, and to prevent more interesting associations from coming into consciousness. If then, as we proved before, the use of a foreign medium adversely affects interest and attention, it will more easily cause fatigue to set in.

In using a foreign medium, we noticed that we had to pay careful attention to the medium as well as to the subject matter. There is a continual "oscillation" or alternation of attention between the two. This requires a great deal of concentration, of selective activity in connection with some end which we have in view, and this, as is evident, requires much mental effort, and leads to fatigue. "The fitful alternation of attentiveness and inattentiveness (that is attention to something else) may continue until fatigue and tedium cause the task to be abandoned." 2)

Everyone who has done any hard thinking, knows what the effects of fatigue are and how it makes our thinking much less effective. As soon as fatigue sets in, a child's mind begins to wander; he is unable to concentrate his attention on the subject in hand. In effective concentrated attention we keep the end in view; but as soon as we are fatigued, we cannot select in accordance with the

1) Teacher's Handbook of Psychology (Sully).

2) Manual of Psychology (Stout).

end, but attend to anything that comes into our mind; we have largely lost our ability to guide our thought. "In states of extreme fatigue the mind loses the power of concentration on a distant end, and attention returns to each single act as it is carried out. We must all be familiar with the condition in which, after hard and fatiguing work, we suddenly become conscious of every movement we make, the pressure of our feet on the ground, the turning of a door handle, the noise of the fire, and so on. The sequence of acts no longer matters, nor even in many cases their nature."¹

Fatigue tests have proved that when fatigued, our thinking is much less effective. We are more liable to make errors, while we tend to work much more slowly. ²) Also our ability to memorise is adversely affected.

But besides these immediate effects, there is a much more serious one, namely that on health. A headache is usually the first effect; but if not careful, we may end by having a nervous breakdown. "Nervous breakdown is now known to occur as the result of too long and severe an application to mental work, more particularly under the artificial stimulus of our examination system."³) We must be specially careful not to continue overstraining children "during the periods of more rapid growth,"³) for then the progress of physical growth as a whole is liable to be obstructed." ³) As a rule children do not take their studies so seriously that these results follow; but there are cases in which they study too hard and overstrain themselves, and it is much easier to do so when their instruction is given through the medium of a language with which they are not very familiar. Practical experience strongly supports our views.

1) The New Psychology and its Relation to Life (Tansley).

2) Experimental Psychology and Education (Valentine). See Fatigue p. 153.

3) Teacher's Handbook of Psychology (Sully).

(1) In answer to my question whether children were less fatigued when the mother tongue was the medium. I received a number of answers from South Africa. The result was as follows: 38 held that fatigue was greater; a few held that they had no experience of the question, and one answered in the negative.

The following answers are interesting.

"If you teach a child through the medium of some other language than that in which he is accustomed to be taught, then his brain has a double work to perform. He must perceive or understand what is given, and translate into the language with which he is more familiar. Personally I have often done it as a student. In Philosophy there were certain terms which I understood better in Dutch, and to understand clearly what I read, I always translated those terms when I came across them. That this kind of thing must be more fatiguing, is self evident. Similarly it must be very fatiguing for the child before he has become so familiar with a language that he can follow it without translation. This is proved by the fact that an English child always shines in a mixed class in which English is the medium."

"Certainly, because when a foreign language is used as medium, the children cannot give their whole attention to the subject that is being treated, as they must continually pay attention to the language."

"Yes, especially in scientific subjects. Things are understood more easily and more thoroughly, and there is no necessity always to learn by heart notes that are not clearly understood. With the mother-tongue as medium they can reason, because they understand the words they use."

(2) In Wales I asked the question whether the use of

the second language unduly fatigued the children. Opinion was about equally divided. In several schools it was held that if English was used as the sole medium, it might be fatiguing, but Welsh was also used, and thus prevented undue fatigue. A skilful arrangement of the time-table also prevented fatigue from setting in. So one teacher held that "if used right through, it would be fatiguing. In this school, however, this does not happen, because if fatigue sets in and attention begins to wander, the teacher drops into Welsh."

In Wales I applied one or two fatigue tests. The class was first divided into two equal sections of about equal merit; the one section had to write in English, the other in Welsh. Then I gave them two or three subjects, and they had to write on each of them. Before they started, however, I let them cancel letters, for say 2 minutes. I had prepared typed sheets of capital letters, and let them cancel two at a time, say all the K's and T's. After about an hour's essay writing, they again had to cancel letters for about the same time. As concentrated attention is required for this kind of work, fatigue easily shows itself by slower work and more errors. We naturally expect them to cancel more quickly the second time due to the practice they have had in it; But this is a constant factor. The only variable factor is the one of fatigue. So if the one section shows less increase in the number of letters cancelled, that section has evidently been more fatigued.

The result of the test was as follows:—

Fatigue Test. (Time 1 hr. for Essay).

1. At Brynsiencyn.		Welsh Essay.			
<i>English Essay.</i>		No. of letters cancelled.		Std.	
No. of letters cancelled.	<i>Before</i>	<i>After</i>	<i>Before</i>	<i>After</i>	
	27	29	21	26	
	30	32	24	24	IV
Total	57	61	45	50	
Increase	7.0%		11.1%		
	24	42	29	43	
	43	48	30	40	
	36	36	21	23	V
	24	26			
Total	127	152	70	106	
Increase	19.7%		51.4%		
II. At Bethesda.					
	25	28	20	24	
	20	25	26	32	VII
	15	16			
	25	23			
	29	24			
Total	114	116	46	56	
Increase	1.7%		21.7%		
Sum Total	298	329	161	212	
Increase	10.4%		31.6%		

These experiments are too few to afford absolute proof; but at least they seem to point in the direction we anticipated, namely that those who wrote in their home-language would be less fatigued, and consequently would show more improvement in cancellation. At Llanfair P.G. I did the same experiment, but it proved a failure. I started too late, about $\frac{1}{4}$ hr. before time; the children were having an afternoon party just after school.

and were in fear of being late. Consequently they wrote very little. The result is as we would expect, namely about the same increase, 30.4% for those who wrote in English and 31.46% for those who wrote in Welsh.

The time was too short and the work too little to cause any appreciable fatigue.

(3) *India.*

The following are some of the views from India.1) If the vernacular becomes the medium, "the *strain* upon the student will be less severe, and he may be able to make better progress both in regard to the command of English and in regard to real knowledge of the other subjects of instruction."

"If, in addition, boys are compelled to express themselves in a language which, at their age, they can only imperfectly learn, a stupendous *waste of energy* is inevitable in the attempt to get the right expression. The result is dissipation of energy; and what should have been utilised in assimilating ideas, is spent in picking up the form."

For an Oriental "the English language is very difficult to acquire.....and this involves an enormous and unnecessary *strain* on the faculties of the learners."

"Great injustice has so long been done to our students, their valuable time most unnecessary lost, their brains and physical systems unwisely and cruelly taxed, and in many cases, altogether ruined, by making English the medium."

We can quite well imagine the difficulties of an Indian with English. Not only has he very little opportunity of hearing or speaking it out of doors, for there are relatively very few Englishmen, but the English language is so entirely different to his home language, and consequently much more difficult to master. Add to this the fact that much of the subject matter is foreign, is Western,

1) See Medium of Instruction in "The Calcutta Univ. Commission (1917-1919)."

and consequently is difficult to follow and makes little appeal to them, and we are not surprised at the above views.

(4) *Poland.*

This fatigue element is also very strongly emphasised by the Secretary of Education in Poland.

Before the war Poland was divided into three divisions, namely German Poland, Russian Poland and Austrian Poland. In German Poland the Polish language was excluded from teaching in the schools, and even its use in the playground was not permitted. In Russian Poland the Russian language was the only medium of instruction, the Polish language being however, taught as an optional subject. From 1904 Polish could be used as medium during the first year of the elementary school. In Austrian Poland there was no difficulty; Polish was the medium of instruction.

"The pedagogical outcome of this system was evidently the worst imaginable. The years the child spends in the lower classes of the elementary school are of the utmost importance for his whole future intellectual development. In this period of life the child should be taught with much greater care than in any other, to observe, to draw conclusions from his observations and generally to think. This is an extremely complicated problem.....Now it is obvious that the instruction in a foreign language in the elementary school makes the problem still more complicated and difficult, almost hopeless, and bears with it two results, one of which is, that "the child is greatly overstrained in the age when any overstrain is of a fatal influence upon his physical as well as psychical abilities.....The higher classes of the Society of other parts of Poland endeavoured as far as possible, to organise in secret a private education for their children in order to avoid the bad consequences of the neglecting of the mother-tongue in the primary schools. In the secondary schools in Russian as well as in German Poland the youth organised secret societies for self-education,

where all work for development of mind and character of the child was concentrated. The result of this state of things was the *overstrain* of the child, the abolishment of any influence of the teacher upon the pupils and the hatred against the school. A great many pupils left the school with the nerves overstrained and lack of energy."

Overstrain does often take place, but it is not as common as one might be led to imagine; as some teachers mentioned, a judiciously arranged time-table, good methods of teaching, and some use of the mother tongue at times tend to lessen it. But besides these, there is another factor, which often safeguards the child from over-fatigue. It is found that very often, as soon as a child becomes fatigued, his attention begins to wander and this gives him a rest. Of course he pays for it by not being able to follow the lesson, and so is at last unable to keep up with the work, because he has not been able to follow what preceded it. So we find that either his health suffers or his education, or both.

5. *Expression of Thought.*

It is very important that we should be able to express our thoughts as clearly and freely as possible. It not only prevents misunderstanding, but if we are able to take part freely in discussions, conversations, etc., our thoughts are cleared up, ideas are suggested, and we take a real living interest in the matter, mental activity is stimulated. The result is a development of our mental and moral life.

The child must therefore be encouraged to take part in conversation, to ask questions in class and to answer freely. "The more chance a child has to express himself and to exercise his conversational powers, the more efficient will he become in expression." 1) James holds that there is "no impression without expression" and that "the most durable impressions are those on account of which we speak or act, or else are inwardly convulsed," 2)

1) Linguistic Development and Education (O'Shea).

2) Talks to Teachers (William James).

in other words language reactions are very important in making impressions effective.

How is the use of a foreign medium going to effect expression? Most of us have at some time or other tried to express ourselves in a foreign tongue. "Let an adult attempt to express himself upon any familiar subject in a foreign tongue of which he is not thoroughly master, and he will show some such confusion and inhibition as does the child who is just beginning his work in composition." 1) (O'Shea). If the second language becomes the medium it is usually not altogether a foreign language, but children will certainly express themselves much less freely in it. And this is only natural; we saw in our discussion on associations that the words and expressions of the second language were not strongly associated with the ideas; hence it would require a great deal more effort to select them, to bring them into consciousness; in some cases it would be impossible and we would have to employ a less suitable word or phrase.

It follows also that if we show less interest in the subject matter and attend less closely to it, we shall be less inclined to ask questions or take part in any discussion.

We either express ourselves orally or by means of writing. We shall now try to support our views by means of evidence and for this purpose will separate the oral from the written expression. There is a great amount of difference between the two, for in writing down our thoughts we always have more time. Consequently when using a foreign medium, we usually find expression by means of writing more easy than oral expression.

A. *Oral Expression.*

(1) *South Africa.*

Although in my questionnaire I had asked no specific question in connection with this point, yet many teachers have mentioned it in answer to a question in which I asked them to give any additional information they may think of. They mentioned the fact that when the home

language is used, the relation between the child and the teacher is much more natural, much more free; and consequently the child is less afraid to ask questions or to answer them. "At once there is an understanding between the teacher and the child; this causes the work to become more interesting."

"It is much easier for the teacher to educate, i.e. to bring out what is in the child, when the mother tongue is used. The child can clearly put his thoughts into words, and is not afraid to say what he knows about the subject. The child is less reserved. And besides, the child's vocabulary is much richer—and every teacher knows what that means."

"The children much more freely disclose their difficulties and thereby make assistance possible—and this is probably the key to the process of intelligently assimilating knowledge. For fear of making too many language mistakes, the child remains silent when a foreign medium is made use of."

"The use of Afrikaans (the mother tongue) does not only make it possible for us to reach the intellect of the child much more easily, but it makes the classes much more lively. Questions are asked more freely, and thoughts expressed."

"As regards Afrikaans, the progress made seems almost abnormal. The children now read more naturally, and speak with much more pleasure, and with less reserve."

"All reserve disappears, and without the least fear the child expresses his thoughts."

"It is often a treat to see how the faces of the children change, when the teacher goes over from English to Afrikaans. They are then keen to answer, and all live and enjoy."

While teaching in South Africa, this fact especially struck me. The children would start asking me questions about the lesson in Afrikaans; if I then told them to ask in English, because they needed more practice in that, and would be examined through that medium, they im-

mediately became quiet, or almost so. The class became altogether irresponsible.

2. *Wales.*

Opinion on this subject is divided, some maintaining that the use of a foreign language makes no difference, others hold that it decidedly does so. What I have noticed in going about is that they answer fairly freely in English, when the subject taught is English, and the subject matter is simple. Especially the few brighter children will then answer with a fair amount of confidence. But when the subject is not English, and the subject matter itself is important and requires more thought, there is then less freedom to ask and answer questions, and one gets practically nothing from the child of average ability or less than average ability. In fact I have known cases where children preferred to say 'I don't know,' when they did know, just because they were afraid to answer. I could usually notice more liveliness when a change was made from the second language to the mother tongue.

(3) *India. 1)*

"The teachers and taught prefer to speak in Bengali in and out of school and, consequently, students cannot speak with fluency and cannot express their ideas in correct and grammatical English."

One of two things happen—either the Bengali has not the English vocabulary to express his thoughts, and has to limit their expression to his limited vocabulary, which gives us no idea of the thoughts in his mind; or we have a man with a strong gift of expression and a copious English vocabulary who expresses his Bengali soul in English words—the choice of words, the grammatical structure is all beyond reproach—but we immediately feel—this is not English—no Englishman or woman would say that—and the thing offends us.....we are suppressing the expression of a Bengali soul."

1) See Medium of Instruction in Calcutta Univ. Report.

(4) *Belgium.*

"No, the children do not readily ask and answer questions. They are forced to express their feelings and thoughts in a foreign language, and thus hesitate (*aarzelen*) more with questions and answers. There is less interest; it no longer affects them."

"The system, that builds up only with French in the third and fourth grades, may give results in general Education with good students, but leaves them helpless when they have to talk on learned topics in their own language. They fail in words and expressions. It is well-known that much of the knowledge gained in schools is entirely lost after a few years," 1) for they never can discuss them with their own people in their own language, because that has been neglected.

(5) *America.*

The United States have had a little experience of foreign language teaching as a result of the large number of foreign immigrants. A foreign child will perhaps come to school. He "thinks in his native language and is utterly confounded at the mysteries attending the performance of the simplest tasks of the American school-room. Is it any wonder that the non-English child sits day after day in some schools refusing to make a sound?" How must the child be made to take an active interest in the work, and to get rid of its "self-consciousness, which is the greatest obstacle, which the teacher of the non-English child has to overcome?" 2) Let us see what the home-language can do. Gilman relates how the reserve of a little French speaking girl is overcome. "My directress of clubs speaks—as she herself says—miserable French, but at the first sound of something at least approaching what the child seems to think is French, two dancing eyes and a most contagious smile give evidence

1) Nota Betreffende Het Onderwijs in de Tweede Taal in de Lagerè Scholen te S. J. Molenbeek.

2) The First School Days of the Non-English Child (Maybell Bush).

of comprehension." 1) According to Miss Jardine 1) the ideal teacher for foreign children is "the man or woman who speaks the language of the pupils and has had the ambition and perseverance to master English to the point of being able to teach it.....Between the teacher who speaks the native language and the pupil, there is no barrier of language."

We see then that with the help of the home language the reserve between the teacher and the child is to some extent broken down, and the child will not be so afraid to answer. If the home language is also the medium of instruction, the child will take a more active interest in the work, because he will be able to ask and answer questions with greater ease, and by so doing will be able to follow what is done, with greater intelligence.

B. Now let us come to the second kind of expression namely *written expression*.

Essay writing is always considered to be one of the most important subjects in the school, not merely because of the language instruction, but also because it trains the child to organise his thoughts and to express them clearly. By comparing essays written through medium of the second language with those written in the mother tongue, we shall be able to see how the use of a foreign medium affects the expression of thought, and, in fact, thought itself. Seeing that the child cannot give his full attention to the subject-matter, when he is not very familiar with the language, but has to give it alternately to the one and then to the other, we naturally expect the subject-matter to be less well-organised, less logical and somewhat confused. And this we find to be actually the case. One can see the flow of ideas is retarded, and their expression less natural. The difficulties of the language prevent the child from entering fully into the spirit of the essay, and the essays are usually very commonplace.

1) Education of the Immigrant—U.S. Bureau of Education Bulletin No. 51.

In a former experiment, we saw that the use of a foreign medium in essay writing, caused more fatigue. We shall now see how it affects freedom of expression.

(1) *South Africa.*

A Junior Matriculation Class was divided into 4 sections A, B, C and D. The first subject for the essay was "Drought" (Droogte). Sections A and B wrote in English, section C in Netherlandish and D in Afrikaans (S.A. Dutch). The next day the essay was on "the choice of a Profession," sections C and D wrote in English, A in Netherlandish and B in Afrikaans.

The pupils had received practically all their education through the medium of English, while Netherlandish had been a subject of study. Just a few lessons had been given in Afrikaans, and practically no essays had as yet been written in it. Afrikaans was, however, the home language and the language of the playground. English was often heard outside as well as inside the school, and one sometimes had to use it in conversation. Netherlandish, though closely related to Afrikaans, yet differs from it in construction, form of words, and to some extent in vocabulary. It is seldom, if ever, heard spoken outside the school. In fact, practically the only time it is heard, is in the Netherlandish lesson, and even then Afrikaans or English is sometimes used by the teacher. Netherlandish therefore, sounds very unnatural; it is associated only with book-learning, and therefore it appears pedantic and stilted when spoken. By comparing the lengths of the essays, the number of words used, we get some indication as to the relative number of ideas expressed, and consequently how thought is affected by the use of different mediums. I allowed them a fairly long time for the essay, so that most of them could easily finish it. Articles I did not count. There were 4 English speaking students, one German speaking student and nineteen Afrikaans speaking students.

The average number of words used, were as follows :

	English	Nether- landish	Afri- kaans	English	Nether- landish	Afri- kaans
	Drought	De Droogte	Die Droogte	Profes- sion	Het Beroep	Die Beroep
1. Afrikaans-speaking students	251	192	288	264	205	241
2. English-speaking students	304				222	180½
3. German-speaking students			175	297		

This shows (1) that Afrikaans-speaking students write English and Afrikaans with about the same facility, in spite of the fact that they have had a great deal more practice in English. They find it more difficult to write Netherlandish; this is because they have had much less practice in it than in English, they never hear it as a living language and as it is similar to Afrikaans, they have to guard very carefully against using Afrikaans words or expressions,

(2) The English-speaking students naturally find English the easiest, then Netherlandish, which they have studied, and lastly Afrikaans, which they have only heard outside.

(3) The German speaking student would be more at home in English which he has studied and used as a medium, while Afrikaans he has only heard in the playground.

The essays prove how weak are some of the associations between the ideas and words and how vague the meaning of some of the words used. One gets phrases like "a profession for which a child is not based" (for "suited"); "an expert in science and other 'motives' (matters) connected with it." And so forth. One also notices a process of translation, either conscious or unconscious. "If the drought is during (afr. duur) for a long

time, men must seek other pastors (pastures) for their sheep." An English-speaking student again writes "alles hang op (Eng. depends on) wat soort van (Eng. what sort of) kind hy is." "Op die ander hand" (Eng. on the other hand) and so on.

Mr. Wyatt, an English-speaking South African, investigated the vocabularies of unilingual and bilingual children in South Africa and comes to the following conclusion: "Such children (Afrikaans-speaking) show a retardation of more than a year as regards range of English vocabulary, and since they are being (were) educated through the English medium, they are considerably handicapped, and their general development must suffer accordingly. They never catch up to the English-speaking children." 1)

In answer to a question about essays in my questionnaire, I received among others, the following replies. I may just add that there is a general agreement about the superiority of the mother-tongue essays.

"Yes, the great difference is that in St. 6 and 7 a child can write an essay without mistakes, whereas it was impossible with Netherlandish as medium. The Afrikaans-speaking child was helpless in the lower school between English and Netherlandish."

"With Afrikaans as Medium there was certainly a perceptible improvement as regards expression of thought.

"Yes, there is much more freedom and originality. It appears as if there are many more ideas about a subject when Afrikaans is used as medium. A child who writes a very uninteresting essay in English or Netherlandish, can be very amusing and interesting in an Afrikaans essay."

"I have tested the matter in a teachers' training class,

1) Unpublished thesis of Mr. Wyatt (Transvaal) on the Vocabularies of Uni- and bilingual students in South Africa.

and find that the students are far more original than in English or Netherlandish."

"The mother-language is much better and it can be clearly seen that when the child writes in the second language, he yet thinks in his mother-tongue."

I have also a number of essays written by Natives, which clearly illustrate some of the foreign language difficulties, notably that of words with very indefinite meaning; or no meaning. Very often too the style is stilted and unnatural; the words are English but the idiom, the phraseology, is not English. A few quotations from essays written by Natives may illustrate my points.

"It was a bright summer day when the sun shown from the east and how brilliancy it looked. Friends had prepared very fine presents for me and one greatest friend of mine presented me with a book written in my own mother-tongue and which contained fails of our old grandfathers.....early in the morning on a happy summer day, the day of joyful end splendidly well at 7.30 a.m."

"I was greatly welcomed by my relatives even though they knew me not. (Book style).....We spent a nice time reading some of the most interesting books of literature, due to the effect that we had no sports to withdraw some of our reading time in it."

"The 'Fair Players' at last gave a sound victory to the 'Union Jacks.' (two teams).

"We were ordered to take our sits when after 5 mins. she (the train) proceded.....one of their best players and I took in single-court the last set. The man was so good that he led by two laugh games."

"A hen keeps its little ones from getting cold, and from a dangerous thing which befalls on them. We use its eggs for making cakes and puddings and for eating it."

Even some of the native teachers are not always clear in their expressions, one can at once see that the writer is not an Englishman. The following are some sentences that occur in a letter written by a native teacher to the Principal.

"I must admit, that although I take the liberty to

write to you as I have previously mentioned it to you, I am deeply sensible of the kindness you have always extended to me. I have been hesitating to unfold to you the subject matter of this letter for a considerable time, but now I can hold it no longer. (The last phrase shows the influence of Afrikaans). With due courtesy I am submitting this case to you, Miss..... as a boy would to a father."

These few quotations are quite sufficient to illustrate the kind of mistakes that are made when a foreign medium is used. There are a number of essays in which very few mistakes occur, but one can usually notice that they were not written by an Englishman.

The essays were mostly from Standards 6 and 7. The ages of the pupils range from about 14 to 28, they speak at home either Zulu, Sixosa, Secuana, Sesuto, Swazi, Afrikaans or English. Some of them have had all their education through medium of the other tongue, others have had part of it through medium of the home language. There are also three European students in the class; they are the youngest members. When one compares their essays with some of the others, one is struck by the natural style in which their essays are written.

(2) *Wales.*

The answers to my questionnaire on this point were more or less in agreement. They stated that essays written in the second language, were somewhat unnatural and stilted in style, and also less imaginative and original. Some hold that it "is difficult to account for it," others hold that it is largely due to the fact that the English used is "based on literary models," and is not so often employed for conversational purposes. The unnatural style is also attributed to the difficulty of expression, and lack of imagination and originality to the fact that the attention cannot be kept on the subject matter, but must also be focussed on the language when difficulties arise. Even expression in Welsh is not always quite natural, because the spoken Welsh is not quite the same as the

written Welsh. Hence the children have to guard against colloquialism. The essays of Welsh children bear out what we have already said about the use of a foreign medium in essays. Many of these mistakes would be made by English children too, for they do not always know the exact meanings of the words they use. But among Welsh children these mistakes will be more common.

Very often they know the word and its meaning more or less, but use it in the wrong place, or use the wrong form. We get sentences like :

"Which one of them you choice."

"A man which is setting there, is a weel expreaus man."

"The people payment to the shop merchant."

"They do not rare much sheep here."

"One of the lacks of the neighborhood is that there is no train."

"The unnatural style is shown in sentences such as "the game we play now most is kicking ball."

"In summer we play the cricket game."

"The life of the people is farming, and some shops here."

We could point out many more such errors, but these are enough to illustrate our point, they are fairly typical.

(3) *India.*

A few quotations will show how difficult it is to acquire a foreign language so well, that you can express yourself quite freely and naturally.

"The papers of M.A. candidates shew that quite a large proportion even of those who have spent six years at Colleges still express themselves with great difficulty in English, and often commit gross grammatical blunders."

"There is a close connection between language and idea, and if one has to spend one's energy in getting over the peculiarities of phrases and idioms the idea is sure to be missed.. Again if a student has not a full command of the vocabulary his ideas are sure to be ill-expressed. Examiner after examiner has complained that Indian

students distort ideas in expressing them, that they are too bombastic, that they use words without grasping their exact significance, and, as a result of these blemishes their composition is deemed to be worthless."

"Indian students think generally in their own vernaculars and translate their thoughts into English in their examination papers. An intelligent examiner can very easily detect this struggle for utterance in most papers. A good piece of composition is generally a reminiscence of other people's writing—the professor's or the annotator's. 1)

(4) *Belgium*. From Belgium we get the same answer. They do not always understand the words they use, "and afterwards only words remain in their memories, without thoughts; hence there is no question of logical thought." The essays are less natural and original, but "one must not forget that everyone thinks and feels in his own language."

It is thus perfectly clear that expression through a foreign medium, both orally and written, is more difficult and fatiguing; this affects our thought, which is consequently of a lower standard.

The reason for this fact is not far to seek; it is simply due to our unfamiliarity with the language (its vocabulary, construction etc.); this causes us to take our attention from the subject matter, to attend carefully to the language, and so on. This alternation of attention is very fatiguing. If we merely had to express ourselves for one period during the day in a foreign language, it would not affect us much, but when we have to get all our instruction through its medium, matters are more serious. We cannot do our work so well, and, not being able to express ourselves clearly, we cannot do justice to ourselves.

Note: The influence of one language on another.

An interesting side-line for study would be the influence of one language on another. In learning our mother-tongue we have formed certain linguistic habits.

1) Calcutta Univ. Report.

So when we wish to acquire "the habit of linguistic expression in a foreign tongue, our constant difficulty is the deep seated linguistic habits already acquired in our own. The learner is beset at every turn with the temptation to follow the path of least resistance and substitute for the speech-sounds, intonation, stress, word-order, construction, idioms, etc., of the foreign language those of the language with which he is already familiar. The learning of a foreign language is a continual struggle to overcome such tendencies, a continual effort to form new habits of speech, and this involves a very considerable exercise of will power by the learner over himself." 1)

Very often, though we use the words of the foreign language the style and idiomatic expressions betray our home language. Mr. Baron (Flanders) says: "our authors only write a French Flemish. They think in Flemish and when writing in French, they keep the ideas, the forms, the expressions to which they are accustomed. They never succeed in permeating themselves with the genius of the French language." 2)

This influence of one language on another is obvious to anyone who hears a foreigner speak his language. A Hollander finds it extremely difficult to pronounce the English "th," while the Englishman finds it practically impossible to pronounce the Dutch "g" sound. A Welshman's accent is different too; he pronounces the "o" in no, more like "o" in not, and usually stresses the last syllable, e.g. slowly, method.

The spelling of the home-language influences that of the other. Welsh for instance, is spelt phonetically, and certain letters represent different sounds to those represented by the same English letters, e.g. "f" is pronounced like the English "V" and so forth. In a

1) Theory and Practice of Language Teaching (E. C. Kittson).

2) The Language Question in Belgium—A. van de Perre.

number of essays "travelling" was spelt as "traffling," "servants" as "servans."

The Welsh idiom is noticeable in expressions like "he lives 14 miles *far* from another man," also in "I was living 14 miles far from another white man," "she pulled off her traffling dress," instead of "took it off"; "It is cold this morning" becomes "cold is it this morning," and it is raining becomes "raining is it?"

Prof. Archer holds that when a Welshman learns English, the intonation is invariably carried over, pronunciation as regards vowel values, and a few other points; construction, word-order, very little, idiom in certain cases which are not numerous, but are such as occur rather often in conversation."

In South Africa we are always warned against using "South Africanisms," when writing English, or "Anglicisms" when writing Afrikaans; for instance the Afrikaans "self" is used only for emphasis, so we are inclined to say "I hurt me." 1) It is impossible, even were it desirable, to safeguard a language from being permanently affected by such influences. So English bears traces of Latin and French; Afrikaans 2) of English, Malay Portuguese, French and Kaffir, as well as of Netherlandish.

Dr. C. T. Loram shows how the vocabulary of the home language affects the meanings of the words of the foreign language. "Concepts are being continually built up with the help of experiences which I have expressed through the medium of language. Hence my concepts are dependent on language and have thus been formed and are still being formed by the language I speak.

Examples from the Native work :

(i) "A Strike." To strike is in Zulu "ukushiyá" i.e. to hit. When Natives are called upon to strike, i.e. to

1) See Chap. on "South Africanisms" in Jutas Univ. English Course (M. H. Jackson).

2) See Article on "Ons Geselstaal" (Von Wielligh) in "Die Huisgenoot" (Jan. 1921).

cease work, they, accordingly to Professor Jackson of the S.A. Native College actually strike i.e. ukushiya.

(ii) A Native assistant writes to me complaining that she does all the work while the head teacher merely "eats the kingdom" (A literal translation of a native idiom which means having a good time).

(iii) Unkulunkulu (the great great one) has been used by some of the missionaries to express God, Unkulunkulu, however, is the mythical semi-divine ancestor of the Zulus, so that a wrong or confused concept has been obtained. Examples could be cited from church terms.

(iiii) The Zulu language is deficient in abstract terms and consequently in abstract ideas, hence the extreme difficulty of getting them to realise (practice) truthfulness, dignity of labour, etc."

When one gets two totally unlike languages, it is more difficult to learn to understand the second language. But once it has been learnt, there is less chance of confusing the two. Though English and Netherlandish are not totally unlike, they are far more so than Netherlandish and Afrikaans, which are very closely related. Hence it is far easier to mix up Afrikaans and Netherlandish, than to confuse Netherlandish (or Afrikaans) with English.

"We are naturally inclined to assume that the nearer the foreign language is to our own, the easier it is. A Spaniard soon learns to understand Portuguese, a Dane Swedish and so forth.....But this very likeness is often a source of confusion. It is a help to the beginner who merely wants to understand the allied language, and is contented with a rough knowledge; but it is a hindrance to any thorough knowledge, because of the constant cross-associations that are sure to present themselves. E.g. German "werden" equivalent to Dutch "worden" and Dutch "werd" to German "ward." The resemblance between German and Dutch is less than that between such a group of languages as Danish, Norwegian and Swedish," which cause great confusion. "Differences of vocabulary are an even greater snare than differences of grammatical structure, because they cannot be brought

under definite rules, e.g. a French man who "demands permission" does not mean to imply the slightest imperativeness." Hence the conclusion that "in learning a remote, unconnected language.....the beginning is much more difficult and of course, it takes a much longer time to understand the language. But when the initial difficulties have been once overcome, it is easier to get a minutely accurate knowledge of the language, because the learner is less disturbed by cross-associations." 1)

One of the questions in language teaching, is how to avoid this confusion, this influence of the one language on the other. It is one of the chief arguments always quoted in support of the direct method of teaching foreign languages.

6. *Rote Learning.*

"Habit is not confined to bodily actions. There are also habits of thought and of will.....A good instance of the habit of thought is that of the making of puns. There are some persons who continually make puns simply because they have fallen into the habit of doing so." 2) "All our life, so far as it has definite form, is but a mass of habits—practical, emotional, and intellectual—systematically organized for our weal or woe, and bearing us irresistibly towards our destiny, whatever the latter may be." 3) It is very important that right habits should be formed, habits "organized for our "weal" and not for our "woe." The teacher's prime concern should be to ingrain into the pupil that assortment of habits that shall be most useful to him throughout life." 4)

We easily form the habit of learning in a certain way; we must beware of getting into the habit of learning everything by rote, of merely memorising without fully understanding what it is that we have learnt by heart.

It is evident that the use of a foreign medium with

1) *A Practical Study of Languages*" by Henry Sweet.

2) *Manual of Psychology* (Stout).

3) *Talks to Teachers* (James).

4) *Talks to Teachers* (James).

its difficulties of expression, with its numbers of unknown words, with the difficulty of having to attend carefully to the language as well as to the meaning and with the consequent fatigue, will tempt us to learn many of the things that we do not clearly understand, by heart. Unless we do this, we cannot express what we know, we cannot do justice to ourselves, with the result that we may have to stay in the same class for another year. It very often proves a far easier task to learn a number of the sentences off by heart, than to have to follow the reasoning and find out what the words really mean. We then learn words without meanings.

Does the use of a foreign medium really tend to foster this bad mental habit in practice? What do the people say who have had experience?

(1) *South Africa.*

"In places where English, just as Netherlandish, is practically a dead language, there—it is evident—the medium is foreign and the children cannot, especially at the beginning, make much progress. The second-language medium encourages parrot work in the schools."

"To secure good thinking, which is the primary object of intellectual education, the meaning of the thing to be thought about, in other words, the comprehension of the language used—is indispensable. If we ask young native children to do thinking about facts so novel to them as those of European civilisation, and in a tongue so foreign as English, we are asking for the impossible, and if we attempt to insist, as we do under our present system, we receive words instead of thoughts. The defects of verbalism and parrot-like memorising so frequently commented upon by the inspectors are chiefly due to the too early insistence upon English as the medium. As Mr. Sargent points out, the facts of modern European civilisation, just as those of religion, are too novel and foreign to the Native to be capable of presentation through a foreign tongue." 1)

1) The Education of the South African Native (Loram)

(2) *Wales.*

In answer to my questionnaire it was said that the foreign medium tended to encourage rote-learning, but that this could largely be avoided by good teaching.

It was also held that the effect of using a foreign medium from the beginning is to "train the memory, not the intelligence. English words are learned, but they convey no meaning." 1)

"The knowledge which the Welsh children acquire of the English language is to a large extent a mechanical exercise of memory rather than of intelligence, and they easily forget it." 1)

(3) *India.*

"In the schools and colleges the students are taught English so imperfectly that they are driven to all sorts of uneducational contrivances in order to pass examinations, particularly to cram up books and memorise passages." 2)

"In subjects other than literature, taught through a foreign medium, students learn more words than things, the grip of facts being lessened by the slavery to ill-understood words," 3)

"I taught one boy logic in the Vernacular (Bengali) and another in English. I noticed that while the one tried to grasp the idea the other was more attentive to the words used. The one learnt and the other got by heart." 2)

(4) *Canada.*

"The best results are obtained when the medium of instruction is in the beginning the mother-tongue. The chief argument in favour of this procedure is that other-

1) Bilingual Teaching in Welsh Elementary Schools—Royal Commission on Education (1886-7).

2) Calcutta Review (1919).

3) Medium Instruction in Calcutta Univ. Report (1917-19).

wise the English words learned become mere parrot phrases, conveying no meaning to the child's mind." 1)

While it is essential that our memory should be trained for we can do no thinking unless we already have a stock of ideas, we must also guard against laying too much stress on memory, especially verbal memory. "It is a matter of common testimony that when the whole stress of education is laid on exercising the memory, the effect is apt to be hurtful to these higher powers of thought; "beaucoup de memoire, peu de jugement." 2)

When a foreign medium is used, there is a strong tendency towards rote-learning. Unless special precautions are taken to counteract this tendency, we may be led to form habits of verbal memorising; these bad habits may even persist when we do not use a foreign medium. We may have formed the habit of avoiding real hard thinking by memorising the passages we do not clearly understand.

7. *The Relation between the School and the Home.*

From the very beginning our home has become associated with a certain language; and not only our home, but all our experiences. Our playmates speak the same language, we find it serves our purpose everywhere. But when we come to school, we find that one of the chief objects of study is another language; that this language is placed before our home language,—and that after a while it supersedes our home language as medium of instruction. The child now finds that he has to use in school a language which he does not require outside it; there his mother-tongue is sufficient for all purposes of intercourse. As this is as yet the child's chief motive for learning language, he finds little use for a foreign tongue, and has no enthusiasm for it.

Different associations are now connected with these two languages. The home language is associated with

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- 1) *The Language Issue in Canada* (O. D. Skelton).
 - 2) *Teachers Handbook of Psychology* (Sully).

all the child's ordinary experiences, and a certain feeling tone is connected with it; the foreign tongue becomes associated only with school work. The result is that the school becomes something unnatural, something that has no connection with ordinary life. What at home the child calls a "koppie en piering," and "graaf," he now has to call "cup and saucer" and "spade."

Add to this the fact that the foreign language is very often connected with experiences, etc., of which the child has no knowledge. Can a description of South African farm life have the same meaning for a Londoner, as it has for a South African? Can an Indian with his Eastern religion, modes of life and so forth, fully understand the books that treat of Western life? Will it be any easier for the Indian if he has to read about Western life in a language with which he is unfamiliar, which he understands but imperfectly? Will the school seem to a little Indian boy to be at all connected with ordinary life, if he there reads a story of people dressed in some quaint fashion, if he reads about our winter sports, our Derby-races, our cricket test matches, and that in a language which is foreign to him?

A certain feeling tone becomes associated with the home language. So many of our experiences are connected with it. We notice this affective element more than ever when we are in a foreign country, and suddenly hear the home language spoken. At once we become different beings, as it were. The sound of our home language has called up ways of thinking, feelings, dispositions and other associations connected with it.

Very often the child knows that the teacher is using a language in school, which he does not as a rule use outside it. Consequently the teacher is unnatural and the school has, for the child, no relation to outside and home life and experience.

This fact has been emphasised by a number of people.

(1) *South Africa.*

"When the mother-language is used, there is at once a feeling of trust between teacher and child." "Where Afrikaans is used as medium, the child progresses much more quickly. There is a connection between the home and the school; what is called a 'kettle,' a 'bucket' or a 'horse' at home, is called the same in school, and the child can thus use the knowledge he already possesses, and the teacher at once has a foundation on which to build. It is no longer, as before, when the child felt as if the school was something apart, where he had to commence from the beginning."

Education through a foreign medium "makes teaching unnatural and hence dry and uninteresting."

(2) *Wales.*

Most of the Welsh teachers hold that since Welsh is the medium of instruction for the first few years, and even after that is still largely used, this unnaturalness is not much felt. Most of them agree, however, that if English were the sole medium, as it was formerly, it would have that effect. That it did have that effect is testified by men who were invited to give their opinions before the "Royal Commission on Education" in 1886-7.

Mr. Evans says "I am ashamed to this day that I, as a schoolmaster, did what was at one time an universal custom, and caned my boys for using in my hearing their mother-tongue, the tongue in which all their heart's associations were bound up, the language of their homes, of their parents religion, of their own sympathies and intelligence.....The School is associated with English, the home with Welsh."

(3) *India.*

Mr. Madge strongly advocates the use of the Indian vernaculars, and points out the evils of the foreign education, "which bears no relation to the facts of the child's ordinary experience," and thus makes the school life unnatural. He points out that the root of the evil is "the foreign nature" of the education, "and its power

of alienating impressionable young minds from their natural entourage." 1)

(4) *Belgium.*

In answer to my question whether the use of a foreign medium made the school-life unnatural and less attractive, I received the following answer: "of course—what else can one expect, especially characters with personality feel the restraint when they try to express their thoughts and feelings, because they always feel more and think better in their own language." Mr. Williams who had studied the bilingual question in Belgium held "that there can be no real development when the child is cut off from the institutions of his environment by denying him the use of his own language in school." 2)

(5) *U.S.A.*

The Americans, in teaching English to their alien immigrants, have had to cope with the same difficulties. "Between the teacher who speaks the native tongue and the pupil, there is no barrier of language.....A teacher who speaks the language of our pupils is able to draw from the native literature stories, poems, proverbs, and songs which in translation the student will be overjoyed to recognise as old friends." 3)

The trend of modern education is to make the school life as natural as possible, to give the children every opportunity of freely expressing themselves in their work. Restraints are being banished from the classroom. It is clear from what has been said that the use of a foreign medium acts as a powerful restraint on the children; it prevents them from expressing themselves with perfect

1) Report of Commissioners on Education (India).

2) Mother-tongue and Other-tongue (Williams).

3) Education of the Immigrant (U.S. Bureau of Educ. 1913).

freedom, if at all. The children, being under restraint, do not feel their natural selves; in fact the whole school atmosphere is unnatural. It is only when they get into the play-ground or go home, that the restraint passes away, and they express themselves naturally in their words and actions.

(8) *Dr. Adler's Theory of the Inferiority Complex.*

The psychoanalytic method of studying the mind has added a great deal to our knowledge of psychology. Dr. Adler's theory of individual Psychology has proved of great practical importance in the treatment of patients suffering from nervous diseases, and has also proved valuable in offering very satisfactory explanations for various other psychological phenomena. His theory is that in everyone there is a will to power, a desire to shine in some direction or other; but at the same time people can easily become discouraged, and develop an "inferiority complex." The higher a person's ambition is, the greater is the risk that he will become discouraged and so suffer from an inferiority complex. Dr. Adler holds that practically all nervous diseases, as well as many eccentricities, illadaptations to environment and so forth, can be explained on the theory of the inferiority complex. He has treated, with a fair amount of success, children who have made themselves absolutely obnoxious in class, and who have appeared exceptionally obstinate and incapable of deriving any benefit from the school. (See "Internationale Zeitschrift für Individual Psychologie, Mai 1924"—"Ein Beitrag zur Erziehung Nervöser Kinder in der Schule.")

It is hardly necessary to ask how we are going to apply this fact to our foreign language medium problem. It is self evident that a person who is taught through the medium of a foreign language, in which he finds it difficult to follow the teaching and to express himself, will become discouraged, and feel himself inferior to others, who can express themselves in their home language. Many of us, who have found ourselves in the company of people

talking a language with which we are not quite familiar, have experienced this feeling of discouragement. We cannot, for instance, see the point in a joke; if we do, we cannot tell a similar joke which we happen to know, or make a hopeless mess of it in the attempt. This kind of thing is all very well, when it happens occasionally, but when it happens continuously we become discouraged, and consequently unresponsive; our interest flags; we are looked upon as dull and stupid; our ambition dies a natural death, or continues to smoulder in the unconscious, and so leads to trouble.

(9) *The Spread of Culture.*

In our modern state of society, where the rights of individuals are recognised, where everyone has some say in the government of his country, everyone also has the right to education and culture. It is necessary that this culture should spread even to the lowest classes.

This culture is spread by means of language, both graphic and oral.

1. *Written Language.* It is difficult to estimate exactly what part books play in spreading culture among the people but everyone knows that books and newspapers have a tremendous influence. They conserve thought and transmit it in all directions.

Now what has this to do with the use of a foreign medium? Let us see.

If we want people to read, we must get them interested in books; they must love reading; and more than that they must form a habit of reading. This habit can be commenced when we are quite young. Children's love for reading will depend on three things, namely (1) on the personal factor, on themselves, (2) on the subject matter and (3) on how it is presented. It is with part of the third element that we have to do, namely with the language in which it is represented.

It is evident that children will enjoy a story much more if the language causes very few, or no difficulties, if they can attend closely to the story and enter into the

very spirit of it. And this they cannot do, when the language presents difficulties; when they cannot so easily follow what is written.

In a former paragraph we showed how the use of a foreign medium tended to make the school and work seem unnatural, unconnected with outside and home experience. We have noticed too that if we read early English, or early Dutch, it makes things appear less real. The less real a thing is, the less do we enter into the spirit of it. The use of our home language, of the language by means of which we address our parents, our brothers and sisters, and our friends, the language which we use in the experiences that are most real to us; this will add a note of reality to what we read, and we shall enjoy it ever so much more. This applies not only to children, but also to adults; but for children it is more important, for it is then that a love of books must be instilled, and not a hatred, and it is then that the formation of the habit of reading must be begun.

One can notice the difference at once when one hears a child read. His intonation when he reads his home language shows that he understands what he reads, that the words have a meaning for him. He does not merely read words, but words accompanied by meaning. An Inspector in South Africa says that when the home language is used, a "natural consequence will be that the monotonous intonation in the reading of Netherlandish, that we have so often found in the lower grades, will disappear. If teachers are asked about this, they usually explain it as due to the fact that the children read a book-language which they do not speak." 1)

"What is very noticeable, is the ease with which children read Afrikaans. For instance, in Standard V they prepare an English reading lesson at home. They read it over time and again at home, and even then they do not read it as well as they would something in Afrikaans

1) Report of Education (Transvaal) (1918).

from 'Die Huisgenoot' or 'De Burger.' 2) One of my teachers told me that her little brother, who is not yet at school, reads through the stories 3) in the 'Huisgenoot.' He finds it amusing to do so, but in Netherlandish, he can hardly get through ten lines. And then people still wonder, and scratch their heads and suck their fingers, because the Afrikaans-speaking child does not seem to care very much for reading." when he is taught through a foreign medium.

Several other teachers have mentioned how children enjoy stories written in their home language, in Afrikaans. One advantage English has over a language like Afrikaans is the great variety of books to suit all ages and all temperaments. Consequently, when children have learned some English, they often get English books which supply more fascinating subject matter, and this counterbalances the factor of the foreign medium to some extent.

In Wales there is some difference of opinion concerning the preference. A few say that English books are preferred, especially when children have passed the initial stages, but most of them add that this is probably due to "the abundance of appropriate books for children in English." As some one said: "strange to say, the children prefer to read English books from St. I up. The reason may be that the Welsh books are not so imaginative, or in short, so suited to the ages as the English books, moreover, there is a great difference between written Welsh, and spoken Welsh." This last factor of course interferes with the naturalness of Welsh books.

From Belgium I received the answer that the children prefer to read in their mother tongue, for then they feel."

The use of language thus plays a part, and a very important one, in making reading an attractive past-time, and consequently in the formation of the habit of reading. Now that the working classes also have more leisure time,

2) An Afrikaans periodical and an Afrikaans News paper.

3) Probably those in the Children's Column.

and books are extremely cheap, it is very important that they should be taught to use part of this time for reading purposes. If this can be done, we shall have made some advance towards the spread of culture. Not only must we use the home language as the initial medium, because the foreign medium acts as a hindrance, but also because its use can often act as a positive stimulus. By getting people to take a pride in their language and their literature, we can do much to foster the love and habit of reading. This is being done successfully in South Africa and this is being done successfully in Wales at the present time.

Many people will read Afrikaans or Welsh books because they are written in Afrikaans or Welsh and have been written by Afrikaners and Welshmen; many people will go to an Afrikaans or Welsh play or concert because the work produced is Afrikaans or Welsh. The same holds good for Belgium and other countries.

The use of the home language in writing books has also been known to make them more valuable, to raise their standard of excellence. Macaulay has affirmed this, has perhaps overstated it a little, when he said, "Frederick had not the full command of any language.....Even had he possessed the poetic faculty.....the want of language would have prevented him from being a great poet. No noble work of imagination, as far as we recollect, was ever composed by any man, except in a dialect which he had learned without remembering how and when, and which he had spoken with perfect ease before he had ever analysed its structure." This statement has proved true in South Africa. It is only since Afrikaans has become a literary language, that works of literary merit have been produced there. This has largely been the result of the feeling of pride in their language, their country, and their nationality, as well as of the fact that they express themselves with greater ease, naturalness, and feeling, in their own language. The same fact has been met with in all countries having similar difficulties, in Wales, Belgium and so forth.

11. *The Spoken Language.*

Culture is largely spread by formal and informal discussion. It requires no eminent psychologist to see that the apostles acted wisely when at the Pentecost, they addressed the various peoples in their various vernaculars. By so doing they reached the hearts of these people.

The Church of South Africa has at last learned the same truth, and is beginning to use Afrikaans instead of Netherlandish in the pulpit.

Informal discussion plays a great part in clearing up one's ideas, and in formulating one's thoughts. By discussion we spread our ideas among our family and friends, and they hand it on further. In this way ideas and thoughts penetrate through society. In this way the student can spread some of the learning that he has obtained at school or in the University. The man who reads and attends lectures can discuss what he has read or heard, with friends and acquaintances. These hand over the ideas to their acquaintances again, and so culture penetrates through society.

The advantage of having our education through the mother-tongue and of reading in our home language, and assimilating our knowledge by its means, is that we shall be better able to discuss the subjects at home, and shall be more tempted to do so. We are then familiar with the technical words and phrases in connection with the subject, and can use them in discussion when we use our home language.

Mr. Mennekens (Belgium) has come to the conclusion that "the system which builds only with French in the third and fourth grades, can, with good students, give results with regard to their general education, but leaves these students helpless when they have to speak in their own language on the knowledge they have acquired. They lack words and expressions. It is a wellknown fact that after a few years a large portion of the knowledge, gained in school, has disappeared. This knowledge seems to have taken less root, because many of the

children are taken up in surroundings, where they hear mostly Flemish, and the French words, for which they have no equivalent in their own language, drift about in their memories, without any real meaning being attached to them." 1)

We at once see the effects of this. They are: (1) no further development of the acquired knowledge through discussion. (2) The acquired knowledge, never being made use of, tends to disappear. (3) The knowledge is not spread among the people.

Charles Candel (a Walloon) once said: "Civilization is being propagated by the same means which serve as vehicles for thought, viz. amongst others, by speech and reading. But as it is easy to understand, these two centres of light remain without effect, or nearly so, every time the written language, the language of the government, business, and the higher class of society is not the language of the people. It remains, in this case, stationary in its development; there is between the people and the commoners of civilization—an insurmountable barrier, a whole language which they will never learn. To them conversation and reading are closed doors, and, instead of occupying their leisure moments with matters which tend to adorn the heart and the mind, and to enlarge their circle of knowledge, they are miserably left to themselves and condemned to cultivate eternally the stock of vices and virtues once acquired." 2)

So that, "besides profiting very little by the enlightenment of his time to perfect his mind and increase his knowledge, he (who was educated in a foreign medium) virtuiēs once acquired." 2)

Some Indians hold that the use of a foreign medium causes a class distinction, namely between the educated class, who are able to speak about the subjects they have

1) Nota Betreffende Het Onderwijs in de Tweede Taal in de Lagere Scholen te sint-jans-Molenbeek.

2) The Language Question in Belgium—A. van de Perre.

learned in the language in which they have learned it, and the masses, who cannot do so. Consequently the culture does not spread from the educated class to the masses. So Mr. Sinha says. "The present system of instructing and conducting examination in English has a far reaching effect. Besides stunting the national language and literature it is gradually creating a wide gulf between the mass and the educated class. This conducting and controlling of education on a foreign model, this ignoring of the Indian spirit and cult, is dwarfing the national thoughts and aspirations and is forcing upon the plastic mind of youth a sense of their own inferiority." 1)

Mr. Vachaspati holds that "the command of a foreign language like English is a great impediment in the way of the student's obtaining higher education, and that is one of the main reasons why, even after the lapse of so many years, western civilisation is confined to such a limited class, and has not spread amongst the people as it should be expected, with the result that the great mass of the people as yet belong to the old order and are ignorant of the scientific methods and improvements in all departments of life." 1)

The use of a foreign medium in education thus evidently tends to check the spread of culture, both in the case of the individual himself and in the case of society as a whole.

Before concluding this chapter, we can just shortly state what we have proved at such great length. Our education we get wholly or mainly through the medium of language, usually the home language. Sometimes another language is substituted for the Mother-tongue as medium. This procedure, though justified in some cases, is yet obviously accompanied by serious drawbacks. The words of the foreign medium have less meaning for us, and the construction of the sentences differ from what we are used to; in other words, the language is unfamiliar.

1) The Medium of Instruction in Report of the Calcutta Univ. Commission (1917-1919).

We therefore have to work more slowly, pay careful attention to the language, with the inevitable result that we continually have to withdraw our attention from the subject matter; hence our thought is not so effective.

We are furthermore severely handicapped by not being able to express our thoughts clearly and fluently. This leads to rote learning, and hinders the spread of culture through society. The foreign medium makes our school-life seem unnatural, unconnected with the life outside it, the life which is most real to us, and which is associated with the home language. The school consequently becomes less attractive; in fact some children are led to detest going to school.

There are of course a number of factors which tend to make education a success or a failure; language is merely one of these factors, but a very important one; and in this case, the only one with which we are concerned. We have proved that the use of a foreign language as medium has a detrimental effect on our immediate thought, as well as on our mental development as a whole.

We shall later on see that there are cases in which it is essential that a foreign medium should be used in education. We shall then shortly discuss the best methods to be followed so as to minimise the detrimental effects due to the foreign medium.

CHAPTER IV.

Motives for Making a Foreign Language the Medium.

Various reasons have been put forward for making a foreign language the medium of instruction. We can class them under the following heads:—

- (1) Political.
- (2) Economical.
- (3) Social.
- (4) Educational.

(1) *Political.* Of these the political is the commonest. The conquering nation wants the conquered nation to

lose its separate identity and merge into its nationality. This it believes, can only be accomplished by substituting its language for that of the conquered. This was the policy of Germany with regard to Alsace-Lorraine and Poland; it was the policy of Russia with regard to Poland; it was the policy of Lord Charles Somerset in South Africa in 1822 and it was the policy of Lord Kitchener in South Africa at the time of the Boer War. In fact it was the policy usually followed by the conqueror with regard to the conquered. It has led to strife and trouble, and yet, strange to say, it has seldom succeeded; in all the above instances it has failed.

When a nation is composed of two sections, each speaking a different language, then we get the same kind of policy. The more powerful section usually tries to impose its language on the less powerful group, "for the sake of unity." The two sections usually belong to different ethical groups, and it is held that separate languages are a barrier to complete unification. Consequently the less powerful group is forcibly called upon to give up its language, with all the tradition etc., of which it is the bearer, and so lose its separate identity and get merged into the more powerful section. This policy sometimes succeeds when the smaller section are few in number, but usually fails. It succeeded in South Africa, with regard to the French Huguenots. The order was received from Holland that their language had to be put an end to ("moet gemortificeerd worden.") This was done with so much success that at present their names alone betray their French descent; it succeeds in America with regard to its alien immigrant population. But it has failed in Belgium and in Wales.

The politicians of the conquered nations and of the weaker sections have also recognised the political value of language. They always fight for the rights of their language. This has been done by the Flemish leaders and is still being done; it is also being done in South Africa by the Dutch Section; it is being done in Wales and in French Canada. In Ireland they are going a step

further; they are trying to revive Erse, which had nearly disappeared.

Evidently great importance has been attached to language with regard to its influence on nationality. It will be interesting for us to examine in what way it is connected with nationality, and how the substitution of another language would affect the nationality, and hence the thought of a nation.

The first question is whether language as such, its form, its sounds, apart from its associations, has any influence on nationality. Would the Africander people have been different if their forefathers in the Netherlands had spoken an entirely different language? Then evidently the Africander people would have spoken a different language too; but it would have been connected with their traditions and with their modes of living, as it is now; it would also have been evolved in the same way, to satisfy the needs of the same people. Evidently the Africander nation would have been much the same, if not entirely so.

The only difference language as such can have, is that it may be more cumbersome in its form, and hence less suitable for literary use. In this way it could to some extent affect the literature and hence the culture of a nation.

The case, however, would be quite different if we substituted for our mother-tongue a language of some other nationality, some language, which has been evolved by another nation in accordance with its wants, and is the bearer of its tradition and history.

If we know what a language's function is with regard to a nationality, then we may perhaps infer what its displacement might entail.

(i) The most obvious function of language with regard to nationality is to mark off one group unit from another or to indentify the members of the same group. In this respect it is similar to geographical boundaries. Mac-Dougall in his "Group Mind" points out that "the development of the group spirit consists in two essential

processes, namely the acquisition of knowledge of the group, and the formation of some sentiment of attachment to the group as such." And for this, he says "it is essential that the group shall be apprehended or conceived as such by its members. Therefore the group spirit is favoured by whatever tends to define the group, to mark it off distinctly from other groups; by geographical boundaries; by peculiarities of skin-colour or of physical type, of language, of accent, of dress, custom or habit, common to members of the group, that is to say, by homogeneity and distinctiveness of type within the group."

Language forms a barrier between members of different groups; it keeps them apart; it prevents them from fully understanding one another; it also prevents intimate social intercourse and intermarriage to a certain extent. Some people may call this a disadvantage; we shall not proceed to argue the point. Language, as a barrier, however, proves very useful too. It tends to strengthen the individuality of nationalities; it prevents sameness, development in exactly the same directions; as such it furthers variety; it adds to the richness of the world. Modern society lays great stress on the individuality of the individual; the newer methods of teaching emphasise the fact that the individualities must not be cramped. Why should this not be so in the case of nationalities? It is evident from this that if we try to substitute another language with all its accompaniments, the expression of the soul of another nation, we are trying to destroy an individuality, we are trying to make it a part of another individuality.

Not only does language act as a barrier, but it forms a bond of sympathy; a common language is something all the individuals of a nation have in common; it is one of their common interests. A strong sentiment always accompanies the mother tongue, it is the language "in which all our heart's associations are bound up, it is the language of our homes, of our parents' religion, of our

sympathies and intelligence." 1) As such it is accompanied by a strong sentiment, there is at once a sympathy between people speaking the same language; this sympathy is especially noticeable when one is in a foreign country, and one suddenly hears one's home language spoken.

This sympathy is noticeable between nationalities too. It is well known that the French-speaking section of Belgium is in sympathy with France; while the Flemish-speaking section is more in sympathy with Holland. So a Walloon has held that "the efforts of our Government must tend to destroy the Flemish Language in order thus to pave the way for the amalgamation of Belgium with France, our great mother country." 2) This policy of suppressing Flemish has been followed quite a long time, but without success.

Mr. Gilchrist has noticed the same sympathy between England and America. "That language is not a universal test is shown by the use of English in America and England. However much the jealousies of these two nations may have been observable in the past, the existence of a common language is bound to make an international rapprochement between these countries more easy than would be possible were there no common medium of expression. War, whether civil or international, between people speaking the same language has always been unsavoury."

A common language therefore makes for unity; this is one of the arguments in India for keeping English as the official language of all India, and for using it in education. India has no common language of its own; there are a "multiplicity of Vernaculars." 3) If English were used throughout the whole of India, it would be a unifying

1) See "Bilingual teaching in Welsh Elementary Schools"—Royal Commission in Education (1886-7).

2) Flanders Right and Claims for Autonomy (Flemish Committee).

3) Indian Nationality (Gilchrist) in Calcutta Review (1919).

factor. This, however, could be accomplished without making English the medium of education. The vernaculars could be the media, while English could be studied as a second language throughout.

If a nationality consists of two sections, each speaking a different language, there is always a strife; no complete unity is formed. To try suddenly to destroy the language of the one section with all its accompaniments, usually proves impossible and is besides unfair and disastrous to the one section. The only way out of the difficulty seems to be the policy followed in South Africa, that of making the whole nation bilingual. In this way two languages and two cultures become the common property of both sections.

Language defines a group, marks it off from other group units; it is something all the individuals of a nation have in common; hence their pride in it, their love for it; it practically becomes part of their very beings. And if one takes it away from them, substituting another, one deprives them of one of their most precious possessions, and gives them something in return which they cannot value nearly the same. Pride in a language has in more than one case proved a strong incentive to action, to deeds. It gives rise to great literature; and is usually accompanied by greatness in other respects, in art, in commerce, and in other departments. It acts partly as cause and partly as effect. We saw this process take place in Holland during the 17th Century; in Wales, South Africa and even in India more recently. If we substitute a language for which they can have no feeling, we remove this incentive to do great things, we check "the development of the group spirit."

If individuals have rights then surely individual groups can be said to have rights too. One of these rights is that of language; no one has a right forcibly to deprive them of that, with all it means for them.

(2) We have already trespassed on our next point, on the second function of a language for the nationality. Language is part of the social inheritance of a nation, and

is the vehicle, the bearer of much more; of a nation's peculiarities, history and tradition. It is as such that a language plays a great role in nationality.

Every nation has an individuality; it has certain peculiarities, certain modes of living, certain habits of thought, and certain ideals and interests. It has built up its language in accordance with its wants. Its language therefore expresses these peculiarities, these customs, these habits of thought, these interests and ideals as no other language, formed to suit another nation's wants, can possibly do. So, for instance, we find Afrikaans rich in idioms and sayings that refer to farm life, and to the ox-waggon ¹⁾ which played such a great part in their lives. So a man who takes the lead, "neem die voortou"; someone who leaves "laat vat" and so forth. Take also the English language of to-day; it abounds in expressions connected with sport; "he did it off his own bat"; "he put his money on the wrong horse," "It isn't cricket," or "playing the game." In America again the English language has been developing upon lines in accordance with the peculiar valuations of the American. To him success, especially financially, is the great obsession. So he continually "calculates," "figures," out things; he "guesses" or "reckons." It is unnecessary for us to multiply examples; it is perfectly clear that language has closely adapted itself to the racial genius of the race, to the peculiar construction it gives to its environment, its occupations. The inference is that this adaptation, becoming a social heritage, is not easily replaced by another language, that much of the spontaneity of thought and humour, much of the comprehension of surroundings will be lost if we were suddenly to substitute another language for our own.

As we said before, language embodies the history, the literature and the tradition of a nation. It therefore stands for all a nation has achieved; it is connected with

1) For a list see "Die Huisgenoot" Oct. 1919 and Sept. 1920.

all the race's past experience; as such it is associated with everything the race holds dear; with its customs, and institutions. The mother-language is above all the vehicle of traditions; it carries from one generation to the next all that affects the group, the wisdom of the past and the hopes of the future. "It reveals the national soul, the collective mind to us in all the stages of its development. By its very existence it keeps alive the flame of national being and hands from generation to generation the torch which is made up of the memories of its suffering, glories and aspirations. Fletcher of Saltoun saw profoundly into the workings of men's minds and the means whereby they are influenced when he exclaimed 'let me make the people's songs and I care not who makes their laws.'" For a law is at best a clumsy embodiment of the popular will, and at worst an outrage upon it, but great literature is an emanation, a projection of the social soul, revealing its profundities to itself. And it is by literature, rather than by any other means that the men of one generation stamp the impress of their personalities on the generations that succeed them. Literary tradition is one of the most powerful of the forces working for the maintenance of national tradition."1) If we study the history of a nation we find a correlation between literature and the national life. The decadence of a literature is usually a sure sign of national lifelessness and deterioration, while national greatness is accompanied by literary greatness. National greatness inspires great literature, which is an expression of that national greatness, while this expression stimulates greatness in a nation, it is a spur to greatness.

No idea or ideal can become a powerful force, unless it is taken up emotionally, unless it is accompanied by sentiment. Now it is evident that the literature, the history, the tradition of another nation is accompanied by very little sentiment for us. It is only when we can say it is *our* national literature, *our* history and *our* tradition that it is accompanied by this sentiment, this spur to

1) Nationality and its Problems. S. Herbert (p. 47).

further greatness. Instead therefore of substituting another language, with its foreign associations, its foreign literature and foreign tradition, we should awake pride in our own, and so awaken the national consciousness to greater activity.

In India a very common argument for the use of English as medium of education, is that by that means Western culture will be introduced. That would probably be the best procedure if Western culture had to be substituted for Eastern culture, a process which would prove impossible. But if the object is merely to fuse Western culture with Eastern culture, to have the Eastern culture modified by Western culture, surely the best procedure would then be to use the vernacular as medium, which is a much sounder pedagogical procedure, and study English as a second language. Books can also be translated, for it is the Western ideas that have to be introduced. In this way the process would be much more gradual, and therefore more beneficial. There have been such cultural changes, unaccompanied by any change of language. Boas holds that on the whole "cases of permanence of type and language and change of culture are much more numerous. As a matter of fact, the whole historical development of Europe from prehistoric times on, is one endless series of examples of this process, which seems to be much easier, since assimilation of cultures occurs everywhere without actual bloodmixture, as an effect of imitation." 1)

We have seen that the national language is the transmitter of the folklore, the religion, the tradition of a race. To replace this transmitter with all that it conveys, is a dangerous procedure. It leads to instability of the social group. The old traditions, customs, etc., have been replaced; the new have as yet no strength, no moral sanction, for they are not part of our tradition. Hence disintegration results. If there is to be any innovation it must be every gradual. "Violent disturbance in the life

1) Boas. "The Mind of Primitive Man."

of a society cannot but profoundly affect the coherence of the social structure." 1) A gradual change may result in the enrichment of a culture, while a rapid one destroys. "The rapid dissemination of Europeans over the whole world destroyed all beginnings which had arisen in various regions, cut short the growth of the existing independent germs without regard to the mental aptitude." 2) The decadence of the Bushmen is a case in point. "Degradation usually consists in this, that the tribal institutions break down. The individual is brought too soon to an absolute freedom from traditional restraint. He has no inner guide to replace the traditional influence of custom." 3) It is evident that none but the mother-tongue can effectively transmit all that is included in folklore and any tampering with it will break down first the continuity of tradition, and then all the restraints that have secured the solidarity of the group. This solidarity is insisted upon by many writers 4) as absolutely essential for the further progress of the group.

If the adoption of a language were to be a very slow unconscious process, it would be less harmful. But when it is sudden and forced, it is absolutely ruinous, even in the case of highly civilised groups. In this case, however, the process of substitution is very difficult to accomplish. It has not been successful for instance in Belgium, but yet the attempt has done great harm. The use of a foreign medium in education there, has tended to check the cultural development of the Flemish for a time, until they were again stirred to take a pride in their language and tradition. The effect of substituting a language would mean the loss of pride, of self-confidence in the people whose language and tradition are treated as inferior; and very often has resulted in their subservience to the others.

1) C. Hill. "Heredity and Selection in Sociology."

2) Boas. "The Mind of Primitive Man."

3) Granger "Historical Sociology."

4) See Chatterton Hill "Heredity, Selection in Sociology," and MacDougall "Group Mind."

This fact has created a number of well known sayings, such as "De taal is gansch 't volk" (The language is the nation altogether), "Die geen taal heeft is geen land weert, Waar geen taal leeft is geen volk." (Gezelle) also "Die taal van die veroweraar is, in die mond van die verowerde, die taal van slawe." (The language of the conqueror is in the mouth of the conquered, the language of slaves).

Language then has its great value for a nation through what it conveys, and through its associations. Besides being a badge of our nationality, it is part of our social inheritance, and conveys the social inheritance of the nation from one generation to the next; consequently it is associated with everything we do or have, with our customs, our institutions, our knowledge and our ideals. It provides a strong sentiment, by being connected with all our experiences, and being something which the nation has in common. If we treat this language as inferior, if we suddenly substitute another language for it with another tradition, which has little value for those to whom we give it, we destroy much and give very little in return. We cause loss of confidence and pride; we cause instability. In the case of individuals emigrating to a foreign country, we substitute a language which has been evolved to suit those new conditions and those institutions, for one that would be less adequate there; and we substitute it to an individual who adopts the ideals of the nation; but in the case of a whole social group, which cannot voluntarily accept the ideals, etc., of the other race, this is impossible. If any substitution takes place the process must be very gradual, so that the language has time to adapt itself to the people, and the people to the language, and so that the language has had time to become connected with some experience of the race. In that case the substitution will be less harmful, and, in the case of a totally inferior race, may finally result in much good.

II. *Economical.* The economical argument need not detain us very long. It is used by individuals in countries where the home language is not a world language like English, German or French, and where one of these

languages is also largely in use. It was held in Wales, in South Africa and even to some extent in Belgium that Welsh, that Afrikaans, and that Flemish were not essential to commercial prosperity and social advance; that English in the two former places and French in the latter were all important for material prosperity. Consequently people wanted their children to learn English or French, and thought that this could be accomplished most successfully if these languages became the media of instruction. Economical pressure was sometimes even used as a political weapon. "The sole language of the Belgians should be French. In order to obtain this it is necessary that all civil and military employments should be entrusted to Walloons and natives of Luxemburg; in this manner the Flemings, temporarily deprived of the advantages connected with such employments, will be forced to learn French and thus the Teutonic element in Belgium will be gradually destroyed" 1) (Rogier). Even such inducements cannot force a whole nation to learn a foreign language, to make it the home language, although it may succeed in a few individual cases

In this case a language becomes associated with the idea of economic success, and people think that if they can make that language the natural medium of expression of their thoughts, they will succeed. The language then becomes the end of education. It matters not whether the child is retarded mentally and morally, whether his school life is made unbearable, so long as he learns the language. Even then it is doubtful whether he does learn the language so much better that this procedure is worth while, that it "pays."

III. *Social.* The social motive is met with in the case of people going to a foreign country. They find that they need the foreign language in their social relations with the people around them. The stimulus to

1) Flander's Right and Claim for Autonomy—Flemish Committee.

learn the language is so great, and the facilities to do it so many, that they usually learn it fairly quickly.

When two languages are used in a country, one is often supposed to bring certain social advantages with it; the man who is able to speak it, is supposed to be educated; it gives him a higher social standing. People are often ashamed to acknowledge that the other language is really their mother-tongue, and sometimes do not even wish to acknowledge that they know it. This is especially the case where the ruling section speaks a certain language, and the ruled another; this motive was met with in England when the language of the court was French; it was met with in Belgium, in South Africa and, I believe, in Wales. Fortunately it has been counteracted. The Flemings, the Afrikaans speaking South Africans, and the Welsh have begun to take a pride in their language, their literature and tradition and their nationality. The effect of this motive on a group is evident. A sense of inferiority is connected with the use of the language. Hence people who use it are looked upon as inferior, as less educated, as lower in the social scale. They notice that their language is despised, and with it their literature and their tradition. They themselves begin to despise it. The result is that instead of being spurred to action by a pride in their language, their literature, their tradition and their nationality, they lose their self-respect, their self-confidence and their ambition. The only way they can overcome this handicap, this disability, is to adopt the language of the other race, their language and their tradition, if that is possible; they must forget that their parents spoke this language, which they are repudiating; that it was the language they first learned; they must forget that they are fellowmembers of the race that still speaks it, that still values the associations with which it is connected.

This fact often leads to disruption in the home; the children who learn the new language, are ashamed of their parents, who have not had the opportunity of doing so. They become disrespectful; they are ashamed to

introduce their new friends to their people. This seems unnatural, but it has been known to occur. It tends to break up the home altogether.

When a national revival takes place, one sees the difference at once; people again take a pride in their language, their literature, their tradition, and their nationality. One sees new life and new ambition. They regain their confidence and self-respect. Artificiality disappears; they become their natural selves again; they are true to themselves and their fellowmen. A knowledge of the other language is no longer the sole aim of education; it is subordinated to the wider aim of mental and moral development, to the aim of self-realization.

IV. *Educational.* We get several arguments that we can class as educational.

(1) It is held by some that education through a foreign medium, with the mother-tongue as a subject of instruction, provides an excellent mental training; it requires more effort and more voluntary attention.

It is evident that if the curriculum is well-planned, and the teaching good, the subject matter ought to provide enough material for mental effort and concentration; any additional difficulties, such as those caused by the use of a foreign medium, will only tend to retard thought, and overstrain the child. In order to be able to think we must assimilate, we must have something to think about, we must have ideas. The use of a foreign medium makes the assimilation of ideas take place more slowly.

Bilingualism is of some use to the linguist. It means that he has two languages to start with. The more languages one knows, the more easily does one get to know others. This is due to similarities in the languages, and also to mental habits that are formed.

If we know two languages we have more control over the laryngeal muscles. Hence we shall be able to pick up the pronunciation more easily.

Bilingualism helps the linguist in that it gives him an insight into the nature of language. By being able to compare two languages, our attention is involuntarily

drawn to certain peculiarities, to certain differences and similarities in languages.

By knowing two languages we have access to the literature of two countries; any one who goes in for higher education will find out how essential it is to know two or three languages. It often helps us to a knowledge of a subject which we would not get by the help of only one language. This is a benefit which does not affect the ordinary man much; it really only affects the small percentage who go in for higher education.

If bilingualism does bring these advantages with it, that does not yet imply that we have to be educated through a foreign medium. We would become bilingual by making the foreign language a very important subject in our curriculum, but retaining the home language as the medium. That would eliminate all the drawbacks of a foreign medium.

Bilingualism as such does not seem to provide any special mental gymnastic, which develops the mind as a whole. If that were so we would expect to find that the bilingual countries produced the greatest men, intellectually and otherwise. But this does not happen. In fact the country which produced some of the greatest thinkers the world has ever had, were unilingual. In Ancient Greece the children did not learn through a foreign medium, they did not even know a foreign language.

(2) From India we very often hear the same argument that English must be used as a medium, because the introduction of a Western culture requires a Western language. A Western language will of course be best suited as a vehicle of Western culture, because the two have always been closely connected. But Western ideas can gradually be introduced into the East without also introducing a Western language. A few terms may be coined or taken over when the other language cannot supply them. Many Eastern ideas have been introduced into the West; our religion, for instance, comes from the East. But we did not have to adopt an Eastern language with the ideas, even though our language was deficient

at the time. By gradually introducing such ideas, we can modify our language accordingly. It grows in accordance with wants.

If India desires Western ideas to be introduced there, this does not imply that the whole of India must study through the medium of a Western language. It simply means that a Western language must be learnt as a second language, and that some Indians must come to the West to imbibe some of the ideas. Through reading Western books, and through contact with the West, these few Indians will act as intermediaries between West and East. They will bring about an exchange of ideas, an exchange which will be to the advantage of both. And this can be done without causing the whole of India to get their education through a foreign medium.

(3) Now we come to the only argument that can sometimes be considered a valid excuse for the introduction of a foreign medium; namely the argument that some languages are inadequate as media for higher education. It is sometimes difficult to judge. In Belgium Flemish (or Dutch) of course is quite adequate. In Wales the general opinion is that Welsh is not adequate for higher education; it is fairly developed as far as literature and song are concerned. But with regard to science, philosophy and so forth, it is sadly wanting in terms and expressions. Consequently it is held that if we wish to go in for higher education; we must adopt English as our medium.

Afrikaans (S. African Dutch) we consider to be a very suitable medium of education, even of higher education. It is a highly developed language as far as its form is concerned, for it was not conserved by writing for quite a number of years. It is therefore an easy language to learn. As yet, it has not a very large literature, but this is growing. It makes use of the Dutch literature. The deficiency in words does not hinder at all; there is always the parent language, Netherlandish, from which words and phrases can be adopted, with the necessary changes.

But what about the native languages? Are they suitable? Are they adequate? Some people think they are.

Mr. Loram, though he strongly believes in education through the mother-tongue, yet thinks that the Bantu languages "have served their purpose. They are not capable of expressing the ideas which the new European civilisation has brought to the country. They are hopelessly clumsy and inadequate on the mathematical and scientific sides.....It is certainly cumbersome to have to express 555 by 'amakulu, amahlanu, anamashumi, amashlanu anesihlanu,' while it is not possible to express in Zulu large numbers, such as hundred thousand, or low fractions." 1) Hence Mr. Loram holds, and we agree with him, that for higher education either Afrikaans or English must be substituted for the native language as medium of instruction.

It is thus practically only in two cases that we are justified in making a foreign language the medium of instruction.

(I) When we settle in a foreign country, we must adopt the language as well as the country.

(II) When our language is unsuitable for higher education; we must afterwards make another language the medium of instruction.

When deciding to make a foreign language the medium of instruction we must be careful how we do it, and why we do it. We must not fall into the error of making a knowledge of the foreign language the end of education instead of only a means. Many people have made this error. The Department of Education (Toronto) for instance, wrote to me that they introduced the foreign language as medium right from the beginning, for "children who begin the study of a foreign language before they have acquired the framework of their own language, use the foreign language, with almost the same facility as their own," but, we may add, not as well as they would have known their mother-tongue, had the knowledge of that been added to by education. They now know neither

1) The Education of the South African Native (C. T. Loram).

language as well as they ought to; while the mental and moral development of the child has also been retarded. The sole aim was to instil a knowledge of the second language. In the same spirit Ahsanullah (India) advises that English should be the medium in the University and partly in the school because "the displacement of English as a medium of examination will have a serious effect on the study of English. To teach English quickly it should be made a medium of mental exchange and a vehicle of thought conveyance. Students should think in English; speak in English, write in English." 1) A knowledge of English is here the sole consideration.

Inspector Van Schalkwyk (S. Africa) says: "Many people in South Africa still have the idea that the Afrikaans speaking children must learn through the medium of English, for then they learn to speak English. This is very often still the standard by which they judge, and which implies that the subject is not of paramount importance, but the medium. In other words, the subject serves the medium, instead of the medium the subject. (Die yak dien die medium in plaas van de medium die vak)."

Even then it is still a debatable question whether they do really learn the second language much better by using it as a medium. The Welsh Society "for the Utilisation of Welsh" held that Welsh should be utilised in the study of English. Mr. Mennekens (Brussels) holds that one must first lay the framework of one's own language, before one can get the best results in the study of the second. His views are shared by teachers who have had experience, who have tried both methods. It is evident that a working knowledge of another language can be obtained by studying it merely as a subject of instruction.

The second language should not replace the mother-tongue without very good reasons; that means that it can

1) Medium of Instruction. Calcutta Univ. Report. (1917-19).

practically never replace the home language, unless that proves to be inadequate for higher education.

It remains for us shortly to discuss how we are to proceed in case of such an extremity; in other words what procedure we must follow in replacing the mother-tongue.

CHAPTER V.

Method of Replacing the Mother-Tongue as Medium— and Conclusion.

We have seen how the use of a foreign medium in education affects thought and mental development—it affects thought adversely; it retards mental development. We are not surprised therefore to hear from various places that education through a foreign medium has been a failure. Mr. Wanderwollen declares that “his opinion was founded on experience. This had driven him to the conclusion that the attempt to teach the sciences and the arts through the other-tongue, was doomed to failure. The teaching of all subjects suffered because French was the medium of instruction. This was particularly disastrous in teaching morals and the things of the spirit, which can only be taken with profit and placed on a firm basis by the use of the home language. The Government had instructed him to draw up a report...His main thesis was that teaching had suffered through the displacing of the mother-tongue by French, even though it had been done with the consent and at the request of parents, who recognised the social and commercial value of the French language.” 1)

Mr. Williams referring to Wales, says “neither is there any need to state a case against the futility of banishing Welsh as the initial medium in the schools in fairly monoglot Welsh districts, for bitter experience has in times past supported the canons of teaching method in the view that there can be no real development when the child is cut off from the institutions of his environment

1) Mother-tongue and Other-tongue—Williams.

by denying him the use of his own language in school." 1)

Mr. Barrow (India) holds that "whatever conclusion might be come to as regards the detail, the great point to be insisted on, it seems to me, is that the present system, by which all instruction after the elementary stage is given through the medium of an alien tongue, has failed hopelessly." 2)

We found, however, that in some cases the home language was inadequate to act as medium for higher education. In this case it must evidently be replaced by another language. We then have to make the best of a bad job; we have to see how this displacement can be accomplished with the least possible harm. This is a very important paedagogical problem, especially in countries like S. Africa, where it is incumbent on the whites to pass on their civilisation to the Natives, whose languages were formed in accordance with their few needs, and are thus inadequate for the new requirements. This subject offers a very fruitful field of research for experimental psychology and paedagogy. Much can evidently be done to minimise the disadvantages of foreign medium education, and to make it as successful as possible. Without having made a very thorough investigation into this problem, we should like to offer a few suggestions.

The first question that arises is :

How can we best study the second language?

We thus come to the question of foreign language study with this slight difference, that here we have to learn the foreign language as soon and as thoroughly as possible, so that in a few years it can replace the mother-tongue as medium. We shall thus not ask at what age a child can most profitably begin the study of the second language, but how soon can he begin to study it without causing harm to the rest of his education.

1) Mother-tongue and Other-tongue—Williams.

2) The Medium of Instruction—in the Calcutta Univ. Commission Report (1917-19).

Some people hold that one must first give the vernacular time to get set. "It is a psychological impossibility to pass through the apprenticeship stage of learning foreign languages at the age when the vernacular is setting without crippling it." 1) This, however, does not seem to be a necessary consequence, unless the foreign language is too soon made the medium, or too much emphasis is laid on the study of the second language. There are many children who are bilingual practically from the time they commence speaking. It very often happens that the children speak one language in the home, and another in the play-ground. In South Africa it frequently happens that the parents speak English (or Afrikaans) while the servants speak Zulu. So that the child who is looked after by a Zulu servant girl, soon speaks both languages; often too the father is English and the mother Dutch or vice versa, and the child hears both languages in the home. The fact that the child uses two languages from the beginning means that he gets less practice in either, so that he knows neither language quite as well. But on the whole, it seems to have no detrimental effect on his mental development, nor does it tend to cause any serious confusion between the use of the languages. He can use either language which the surroundings suggest and the circumstances require.

If the second language is taught in the right way, it can be commenced quite early. A short oral lesson could be given each day in the second year of the infant class, but it should not be studied as a written language until some time later, say the last term in Standard I or the first in Standard II.

In Wales the study of the second language is usually commenced in the Infant School, either from the very beginning with children of about four years, or in the second year. It is found that no confusion is caused, if it is only taught orally at first. One advantage of beginning early is that the child will get a more correct pronunciation.

1) Adolescence—by Stanley Hall.

Older people form habits of pronouncing and they find it extremely difficult to form new habits. With small children this is not the case, "the younger the child, the more perfect its imitation of the foreign language" 1)

Miss Jones holds that language study depends largely on the senses, and "according to Madame Montessori 'the education of the senses precedes that of superior intellectual ability, and the child, between 3 and 7 is in the formative period.'" 1) For the little ones the teaching must be concrete. Language must therefore be taught "in the order of Things, Ideas, Words and not Words with either abstract or no meaning." 2)

It is sometimes held that the purely direct method will give the best results. The translation method, which was used in the study of Latin and Greek, proved a failure, and would even be less successful in the study of a modern language. When translation alone is used, the language appears to be a dead language, something unnatural; hence very little interest will be taken in it. We shall never learn to think in the language, or to express our thoughts in it, for we shall have formed the habit of translating everything. It is very important that we should hear a language used as a living language, and that we should attempt to express ourselves, orally and graphically, by means of it.

The direct method is much more sound psychologically. It represents the language as a living one; it requires expression through its means. One thus gets practice in it and forms habits of expression by means of it. Besides other advantages, it also gives a good training in logical inference. The meaning is represented in various ways, and one often has to infer it.

When one represents an object, or a picture of an object, the matter is simple enough. Very many actions can also be easily represented, for instance "I walk," "I

1) *A Practical Study of Languages*—Henry Sweet.

2) Memorandum by Miss Longfield Jones (Wales).

run", "I write" and so on. But there are cases when it is not so easy to make clear the meaning; in fact, sometimes it is practically impossible. It is then that we must not prove to be the slaves of a method, but must give the equivalents in our own language. There is absolutely no harm in it. We can always use our mother tongue for explanatory purposes, when the meanings are not clear in the other tongue. Many adults have had occasion to study a foreign language, and they know how much time can sometimes be saved by getting the equivalents in their own language. But we must not be too eager to fall back on the home language for we must try to create a second language atmosphere in the English lesson, and the children must not be made too dependent on the mother-tongue for expression in the second-language lesson. They must there feel the necessity of expressing themselves in the second language, and so unconsciously have that purpose in mind. We saw in part I that the surroundings (the atmosphere) and the purpose were two factors, which made it possible for us to speak consecutively in one language.

It is found that children are very fond of telling stories, of expressing themselves; this interest in story-telling 1) increases until the child is about 13 or 14 years old, and then decreases. When a child is expressing himself, we must not stop him at each little mistake, but must at first only correct the more serious ones. This interest in telling stories, or experiences, we must exploit to the utmost, for, as Mr. O'Shea points out "The more chance a child has to express himself and to exercise his conversational powers, the more efficient will he become in expression." 2)

When the child has learned to read and write in his mother-tongue, he soon learns to do it in the other-tongue too, even if that be not phonetic. And when a child can read, we must encourage him to read little stories and books.

1) See Adolescence—by Stanley Hall.

2) Linguistic Development and Education (O'Shea).

In the higher classes translation is not without value; it brings out the differences between the constructions and expressions of the two languages, and so is very useful in language study. As Mr. Mennekens points out "In every case it is necessary to arrange language-study in such a way, that besides the use of the direct method, there will also be a practical system of comparison, whereby each language supports the other and the morphological difference between the two clearly comes out," 1)

In studying the second language we should therefore begin with a little oral conversation in the infant class, and, after the children are able to read and write in the vernacular, we should commence the reading and writing of the second language. The best method is a compromise of the direct method; the direct method as far as possible, while the second language is used sometimes for giving equivalents and for explanatory purposes.

This method of foreign language study does not apply equally in the case of adults, especially educated adults. They have rather neglected the development of their acoustic sensibility and memory. They have become more and more dependent on their visual sensations and visual memory. They have to a certain extent lost the capacity for accurate imitation of sounds, and in addition have become more reserved, selfconscious, and oversensitive, so that they become afraid of making glaring mistakes. Many adults, who have had to live in a foreign country for some time, have been struck by the fact that their children have picked up the foreign language much more easily and quickly than they have, and that without any special effort. The adult has formed certain language habits, and cannot easily adapt himself to other language habits and forms. If he wants to study a foreign language, he will have to apply quite a different method, a method which is based more especially on visual sensations and

1) Nota betreffende het Onderwys in de tweede taal —Jef. Mennekens.

visual memories. He will have to read much, study the forms of the language, and note how they differ from his home language. His study will be based chiefly on books, while the direct method will merely supplement it. Personal experience has taught me that after months spent in a foreign country, I could understand the language quite well, because I had read it a great deal, and had heard it continuously. But I could not speak it correctly, because I had paid too little attention to the grammar. My attention had first to be drawn to the fact that in German "in" was sometimes followed by the accusative and sometimes by the dative, before I could put the correct endings on to the words.

The adult has to apply more conscious effort in the study of a foreign language, while the child learns it by playful imitation.

The next question that arises is *how should the replacement take place*; should it be sudden, or should it be gradual, should it take place soon or late?

About the first part of the question there can be very little difference of opinion. Evidently the right way is to make the change gradual, to change over imperceptibly from the one medium to the other. This, I think, is the tendency that is being shown in the various countries which are faced with this problem, for instance in Wales.

The second language could then be introduced as medium fairly early, say in the 2nd or at the beginning of the 3rd year, when we could commence with one subject, for instance Arithmetic. Of course the children would previously have been prepared for this in the English lessons, where they would have learned to count in English, and have learned some of the terms that would be used. Then the teacher would sometimes use these terms in the arithmetic lesson, but would still use the mother-tongue for explanations. We would advise the local Geography and History to be taken through medium of the mother-tongue, to make it more natural, but when we commence with the history and geography of other

countries, we could gradually commence to use the second language as medium.

In the case of subjects which are not required for higher education, we need not change to the foreign medium at all, especially such subjects as religion and moral teaching. These subjects are so closely connected with the home and the language that it would be harmful to give them through the foreign medium. Besides our aim is to introduce the foreign medium so as to be able to provide higher education through its means. Dr. Loram writes "I am so convinced of the folly of attempting to teach through the medium of the foreign tongue that I make use of Zulu as the medium up to Standard IV, and in some subjects, e.g. Scripture, Hygiene am arranging to extend vernacular instruction up to Standard VI."

It would take us about 4 or 5 years to change from one medium to the other, in the subjects in which we have to change. The change would be complete when they have passed Standard VI, that is when they are about twelve or thirteen years old. The mother-tongue must of course be continued as a subject of instruction, and can still be used when necessary for explanatory purposes.

By making the replacement gradual in this way, we tend to lessen the factor of unnaturalness. The school is quite natural at the beginning, and since the change is almost imperceptible, they do not tend to regard it afterwards as very unnatural.

It also diminishes wordiness, the result of learning words without knowing the meanings, and rote-learning. By learning the second language before they use it, and being thus able to follow the work, their interest and attention suffer less.

The direct method instead of the translation method tends to obviate the influence of one language on the other, the confusion between the two. Of course there is sometimes unconscious translation both of words and expressions, but this will be less when the direct method is used.

We are thus able to obviate to some extent the defects of a foreign medium; it will always be detrimental, but the problem is to make it as little detrimental as possible.

This brings us to the end of our subject. We have seen what language is, what thought is, and how the arbitrary system of signs and symbols can represent our thought, in fact, have become essential as vehicles of thought, have become essential for the development and transmission of thought. We have seen that there are a number of arbitrary systems each different from the other, each adopted by different group units, and developed according to their peculiar needs and wants. Each generation inherits the language from the former generation, and not only the language, but a whole social system of relationships. The function of the language is the transmission of the achieved results of past generations, of the store of traditions, ideas and habits accumulated in the past. It represents in the social plane what the germ plasm does in the physical, for it carries from generation to generation the social heritage of the group, with this difference that all accretions, all additions and assimilations from other cultures, all adaptations to environment are transmitted for future use. For each group and for each member of that group, the language has a number of associations; a strong feeling is generated with regard to it, is associated with it. And this feeling can be made to act as a stimulus, as a spur to activity, to achievement.

We saw how the displacement of the national language affected the group, and how groups naturally resented any interference with their language.

We also saw how the substitution of a foreign language for our home language affected the individual, how it tended to instability, and how the use of a foreign medium in school affected his mental development and thought—that it caused inattention, lack of interest, fatigue, unnaturalness, and that it prevented the spread of culture to the less educated class.

In some cases, namely those of inadequate languages.

we saw that we had to make use of a foreign medium, that the advantages attached to it outweighed the disadvantages, especially if the replacement was done in the right way. The second language must first be taught by a compromise of the direct method, must gradually and almost imperceptibly replace the mother-tongue as medium. This study has shown us in what way words are connected with ideas; it has shown us how thought is affected by the use of a foreign medium; it has thrown some light on the relation between language and thought.

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Much of my information I have received through correspondence, and by means of Questionnaires. I have also made free use of the information contained in a pamphlet by myself on "Ondersoek na die Waarde van Afrikaans as Medium van Onderwys vir Afrikaans sprekende Leerlinge."