MIND AND MEMORY TRAINING

BY

ERNEST E. WOOD

FORMER PRINCIPAL OF THE D. G. SIND NATIONAL COLLEGE, HYDERABAD, SIND

SECOND EDITION

PREFACE

THIS book is the result of over thirty years' experience and study of the memory systems of Europe and India.

The author, as an educationist of eminence and long standing—with the founding of two University Colleges also to his credit—has had uncommon opportunities for observation of the ways of the mind, and he has pursued his quarry with all the keenness of a naturalist who stalks the denizens of the wild in order to note and record their habits.

He wishes to deprecate the frequent criticism that memory systems are unnatural or artificial. On the contrary, such as are described here follow the spontaneous processes of the mind found in people who have naturally good memories.

He desires to acknowledge with thanks to Messrs. Ganesh and Co., Madras, and to The Theosophical Publishing House, Madras, the use herein of various extracts from writings of his published by them several years ago.

CONTENTS

SECTION IV

A BAG OF TRICKS

SECTION V

THE MIND AT WORK

SECTION VI

SOME PARTING ADVICE

SECTION I

THE MIND AND ITS MANAGEMENT

MIND AND MEMORY TRAINING

CHAPTER I

THE MAGIC BOX

IMAGINE yourself to be standing with a party of friends in some Oriental market-place, or in a palace garden. *Enter*, a conjurer with a magic box. The strange man spreads a square of cloth upon the ground, then reverently places upon it a coloured box of basket-work, perhaps eight inches square. He gazes at it steadily, mutters a little, removes the lid, and takes out of it, one by one, with exquisite care, nine more boxes, which seem to be of the same size as the original one, but are of different colours.

You think that the trick is now finished. But no; he opens one of the new boxes and takes out nine more; he opens the other eight and takes nine more out of each—all with Oriental deliberation. And still he has not done; he begins to open up what we may call the third generation of boxes, until before long the ground is strewn with piles of them as far as he can reach. The nine boxes of the first generation and the eighty-one boxes of the second generation have disappeared from sight beneath the heaps. You begin to think that this conjurer is perhaps able to go on for ever—and then you call a halt, and open your purse right liberally.

I am taking this imaginary conjuring entertainment as a simile to show what happens in our own minds. Something in us which is able to observe what goes on in the mind is the spectator. The field of imagination in the mind itself may be compared to the spread cloth. Each idea that rises in the

mind is like a magic box. Something else in us which is able to direct the ideas in the mind is the conjurer. Really the spectator and the conjurer are one "something" which we are, but I will not now attempt to define that something because our present object is not to penetrate the deep mysteries of psychology, but to see what we can do to make ourselves better conjurers, able to produce our boxes quickly —more boxes, better boxes, boxes which are exactly of the kind needed for the business of thinking which at any given time we may wish to do.

Although all minds work under the same laws, they do so in different degrees of power and plenty. Some work quickly, others slowly; some have much to offer, others little. Several students may be called upon to write an essay on the subject of cats. Some of them will find their thoughts coming plentifully forward from the recesses of the mind, while others will sit chewing the ends of their pens for a long time before their thoughts begin to flow.

Some minds are brighter than others, and you want yours to be bright and strong. You want to think of many ideas and to think them well. You want to think all round any subject of your consideration, not only on one side of it, as prejudiced or timid thinkers do.

While you are making the mind bright, however, care must be taken to avoid the danger that besets brilliant minds everywhere. The quick thinker who is about to write upon some social subject, such as that of prison reform or education, will find thoughts rapidly rising in his mind, and very often he will be carried away by some of the first that come, and he will follow them up and write brilliantly along the lines of thought to which they lead. But probably he will miss something of great importance to the understanding of the matter, because he has left the central subject of thought before he has considered it from every point of view.

As an example of this, a chess player, captivated by some

daring plan of his own, will sometimes forget to look to his defences, and will find himself the subject of sudden disaster. Sometimes a duller mind, or at any rate a slower one, will be more balanced and will at last come nearer to the truth.

So, while you do want a quick mind, not one that is hard to warm up like a cheap motor-car engine on a cold winter's morning, you do not want one that will start with a leap and run away with you, but one that will dwell long enough on a chosen subject to see it from every point of view, before it begins the varied explorations of thought in connexion with it that it should make upon different lines.

If I follow up the analogy of an engine, we require three things for the good working of our mental machinery—cleaning, lubrication, and control.

CHAPTER II

THE ROADS OF THOUGHT

CONTROL of the subject-matter and the direction of movement of our thought is often called concentration. Let us try a preliminary experiment to see exactly what this means.

Sit down in some quiet place by yourself, and set before the mind an idea of some common object. Watch it carefully and you will soon find that it contains many other ideas, which can be taken out and made to stand around it—or perhaps you will find that they leap out incontinently and begin to play about.

Let us suppose that I think of a silver coin. What do I find on looking into this box? I see an Indian rupee, a British shilling, an American "quarter." I see coins round and square, fluted and filleted, small and large, thick and thin. I see a silver mine in Bolivia and a shop in Shanghai where I changed some silver dollars. I see the mint in Bombay (which I once visited) where coins of India are made; I see the strips of metal going through the machines, the discs punched out, the holes remaining.

Enough, I must call a halt, lest this fascinating conjurer go on for ever. That he could not do, however, but if I permit him he will open many thousands of boxes before he exhausts his powers. He will soon come to the end of the possibilities of the first box, but then he can open the others which he has taken from it.

It is the peculiarity to some minds—of the wandering and unsteady kind—to open another box before they have taken everything out of the first. That is not concentration, but mind-wandering. Concentration on an idea means that you will completely empty one box before you turn away from

it to open another. The value of such practice is that it brightens up the mind and makes it bring forth ideas on a chosen subject quickly and in abundance.

There is a reason why a given box should become exhausted. It is that the ideas which come out of it do not do so at random but according to definite laws; they are chained to it, as it were, and only certain kinds can come out of a certain kind of box.

Suppose, for example, someone mentions the word "elephant" in your hearing. You may think of particular parts of the animal, such as its large ears or its peculiar trunk. You may think of its intelligence and its philosophical temperament, or of particular elephants that you have seen or read about. You may think of similar animals, such as the hippopotamus or the rhinoceros, or of the countries from which elephants come. But there are certain things you are not likely to think of, such as a house-fly, or a paper-knife, or a motor-boat.

There are certain definite laws which hold ideas together in the mind, just as gravitation, magnetism, cohesion and similar laws hold together material objects in the physical world.

For the purpose of this preliminary experiment I will give a list of the four main Roads of Thought. Notice, first, that among your thoughts about an elephant there will be images of things that resemble it very closely, that is, of other animals, such as a cow, a horse, or a camel. The first law of attraction between ideas is to be seen in this. Ideas of similar things cling closely together, and easily suggest one another. We will call this first principle the law of **Class.** It includes the relations between an object and the class to which it belongs, and also that between objects of the same class.

The second is the law of **Parts.** When you think of an elephant you will probably form special mental pictures of

its trunk, or ears, or feet, or when you think of its ears you may also think of other parts of it, such as the eyes.

The third law may be called **Quality.** It expresses the relation between an object and its quality, and also between objects having the same quality. Thus one may think of the cat as an artist, of the moon as spherical, etc., or if one thinks of the moon, one may also think of a large silver coin, because they have the quality of white, disc-like appearance in common.

The fourth law involves no such observation of the resemblances and differences of things, or an object and the class to which it belongs, or a whole and its parts, or an object and its prominent qualities. It is concerned with striking and familiar experiences of our own, and has more to do with imagination than logical observation.

If I have seen or thought of two things strongly or frequently together, the force of their joint impact on my consciousness will tend to give them permanent association in my mind. I therefore entitle the fourth principle the law of **Proximity.**

Thus, for example, if I think of a pen I shall probably think also of an inkpot, not of a tin of axle-grease. If I think of a bed I shall think of sleep, not of dancing. If I think of Brazil, I shall think of coffee and the marvellous river Amazon, not of rice and the Himalaya mountains.

Each one of us has an independent fund of experience made up of memories of such relationships seen, or heard of, or thought about, either vividly or repeatedly.

Within this law comes also familiar sequence, or contiguous succession, often popularly called cause and effect, as in exercise and health, over-eating and indigestion, war and poverty. It is proximity in time.

In connexion with Road I, I must mention a case which is often misunderstood—namely contrast. If two things contrast they must belong to the same class. You cannot

contrast a cow with blotting paper, or a walking stick with the square root of two. But you can contrast an elephant and a mouse, blotting paper and glazed paper, the sun and the moon, and other such pairs. So contrasts belong to Road I.

The four Roads of Thought mentioned above are given in a general way for our present purpose. For greater precision of statement the four laws must be subdivided; I will do this in a later chapter.

I wish the student particularly to notice that some ideas arise through the mind's capacity for comparison, that is through a logical faculty, while others arise simply in imagination, without any reason other than that they have been impressed upon it at some previous time. Comparison covers the first three laws, imagination the fourth only.

To convince the student that these mental bonds between ideas really exist, let me ask him to try another small preliminary experiment, this time not upon his own mind, but upon that of a friend. Repeat to your friend two or three times slowly the following list of sixteen words. Ask him to pay particular attention to them, in order—

Moon, dairy, head, paper, roof, milk, fame, eyes, white, reading, shed, glory, cat, top, sun, book.

You will find that he is not able to repeat them to you from memory.

Then take the following series and read them to him equally carefully.

Cat, milk, dairy, shed, roof, top, head, eyes, reading, book, paper, white, moon, sun, glory, fame.

Now ask your friend to repeat the list, and you will find that he has a most agreeable feeling of surprise at the ease with which he can perform this little feat.

Now the question is: why in the first place was he not able to recall the series of ideas, while in the second case he could easily remember them, the words being exactly the same in

both the sets? The reason is that in the second series the ideas are in rational order, that is, each idea is connected with that which preceded it by one of the four Roads of Thought which I have mentioned. In the first series they were not so connected.

I must remark that the deliberate use of these Roads of Thought involves nothing forced or unnatural. It is usual for our attention to go along them, as I have already indicated. For instance, I knew a lady in New York named Mrs. Welton. One day when I was thinking of her, I found myself humming the tune of "Annie Laurie." Somewhat surprised, I asked myself why, and brought to light the first line of the song, which goes: "Maxwellton's braes are bonny. . . ."

CHAPTER III

CONCENTRATION OF MIND

MANY years ago I invented another simple experiment to help some of my students to gain that control of mind which is called concentration. This has proved itself, I think, to be the very best means to that end. Let me ask the reader or student now to try this experiment for himself in the following form—

Select a quiet place, where you can be undisturbed for about fifteen minutes. Sit down quietly and turn your thought to some simple and agreeable subject, such as a coin, a cup of tea, or a flower. Try to keep this object before the mind's eye.

After a few minutes, if not sooner, you will, as it were, suddenly awake to the realization that you are thinking about something quite different. The reasons for this are two: the mind is restless, and it responds very readily to every slight disturbance from outside or in the body, so that it leaves the subject of concentration and gives its attention to something else.

Now, the way which is usually recommended for the gaining of greater concentration of mind, so that one can keep one's attention on one thing for a considerable time, is to sit down and repeatedly force the mind back to the original subject whenever it wanders away. That is not, however, the best way to attain concentration, but is, in fact, harmful rather than beneficial to the mind.

The proper way is to decide upon the thing on which your attention is to be fixed, and then *think about everything else you can without actually losing sight of it.* This will form a habit of recall in the mind itself, so that its tendency will be to return to the chosen object whenever it is for a moment diverted.

Still, it will be best of all if, in trying to think of other things while you keep the chosen object in the centre of your field of attention, you do so with the help of the four Roads of Thought, in the following manner—

Suppose you decide to concentrate upon a cow. You must think of everything else that you can without losing sight of the cow. That is, you must think of everything that you can that is connected with the idea of a cow by any of the four lines of thought which have been already explained.

So, close your eyes and imagine a cow, and say: "Law I —Class," and think: "A cow is an animal, a quadruped, a mammal"—there may be other classes as well—"and other members of its classes are sheep, horse, dog, cat—" and so on, until you have brought out *all* the thoughts you can from within your own mind in this connexion. Do not be satisfied until you have brought out every possible thought.

We know things by comparing them with others, by noting, however briefly, their resemblances and differences. When we define a thing we mention its class, and then the characters in which it differs from other members of the same class. Thus a chair is a table with a difference, and a table is a chair with a difference; both are articles of furniture; both are supports.

The more things we compare a given object with in this way the better we know it; so, when you have worked through this exercise with the first law and looked at all the other creatures for a moment each without losing sight of the cow, you have made brief comparisons which have improved your observation of the cow. You will then know what a cow is as you never did before.

Then go on to the second Road of Thought—that of Parts—and think distinctly of the parts of the cow—its eyes, nose, ears, knees, hoofs, and the rest, and its inner parts as well if you are at all acquainted with animal anatomy and physiology.

Thirdly comes the law of Quality. You think of the physical qualities of the cow—its size, weight, colour, form, motion, habits—and also of its mental and emotional qualities, as far as those can be discerned. And you think of other objects having the same prominent qualities.

Lastly comes the fourth division, that of Proximity, in which you will review "Cows I have known," experiences you have had with cows which may have impressed themselves particularly on your imagination. In this class also will come things commonly connected with cows, such as milk, butter, cheese, farms, meadows, and even knife handles made of horn and bone, and shoes made of leather.

Then you will have brought forth every thought of which you are capable which is directly connected in your own mind with the idea of a cow. And this should not have been done in any careless or desultory fashion; you should be able to feel at the end of the exercise that you have thoroughly searched for every possible idea on each line, while all the time the cow stood there and attention was not taken away from it.

A hundred times the mind will have been tempted to follow up some interesting thought with reference to the ideas which you have been bringing out, but every time it has been turned back to the central object, the cow.

If this practice is thoroughly carried out it produces a habit of recall which replaces the old habit of wandering, so that it becomes the inclination of the mind to return to the central thought, and you acquire the power to keep your attention upon one thing for a long time.

You will soon find that this practice has not only given you power of concentration, but has brought benefit to the mind in a variety of other ways as well. You will have trained it to some extent in correct and consecutive thinking, and in observation, and you will have organized some

of that accumulation of knowledge which perhaps you have for years been pitching pell-mell into the mind, as most people do. This exercise, practised for a little time every day for a few weeks, exactly according to instructions, will tidy or clean up the mind, and also lubricate it, so as to make it far brighter than it was before, and give it strength and quality evident not only at the time of exercise, but at all times, whatever may be the business of thought on which you are engaged during the day.

One of the most fruitful results will be found in the development of keen observation. Most people's ideas about anything are exceedingly imperfect. In their mental pictures of things some points are clear, others are vague, and others lacking altogether, to such an extent that sometimes a fragment of a thing stands in the mind as a kind of symbol for the whole.

A gentleman was once asked about a lady whom he had known very well for many years. The question was as to whether her hair was fair or dark, and he could not say. In thinking of her his mind had pictured certain parts only, or certain parts vaguely and others clearly. Perhaps he knew the shape of her nose, her general build and the carriage of her body; but his mental picture certainly had no colour in the hair.

The same truth may be brought out by the familiar question about the figures on the dial of your friend's watch, or about the shape and colour of its hands. One day I tested a friend with this question: "Can you tell me whether the numerals on your watch are the old-fashioned Roman ones which are so much used, or the common or Arabic numerals which have come into vogue more recently?"

"Why!" he replied, without hesitation. "They are the Roman numerals, of course."

Then he took out his watch, not to confirm his statement, but just in an automatic sort of way, as people do when

thinking of such a thing, and as he glanced at it a look of astonishment spread over his face.

"By Jove," he exclaimed, "they are the Arabic figures. And do you know, I have been using this watch for seven years, and I have never noticed that before!"

He thought he knew his watch, but he was thinking of part of it, and the part was standing in his mind for the whole.

Then I put another question to him: "I suppose you know how to walk, and how to run?"

"Yes," said he, "I certainly do."

"And you can imagine yourself doing those things?"

"Yes."

"Well, then," said I, "please tell me what is the difference between running and walking."

He puzzled over this question for a long time, for he saw that it was not merely a difference of speed. He walked up and down the room, and then ran round it, observing himself closely. At last he sat down, laughing, and said: "I have it. When you walk you always have at least one foot on the ground, but when you run both feet are in the air at the same time."

His answer was right, but he had never known it before.

Life is full of inaccuracies due to defective observation, like that of the schoolboy who, confronted with a question about the Vatican, wrote: "The Vatican is a place with no air in it, where the Pope lives."