

does not fall within the province of the teacher. It is for him to note the ways and means of quickening and strengthening the power of discrimination. Our intelligence being absolutely limited by our power of detecting differences, the teacher is bound to consider what helps and what hinders the exercise of this fundamental function. The following are some of the conditions favorable to the exercise of the faculty of comparison:—

1. *Mental Watchfulness.* This in fact is a condition of every intellectual function. In a languid, drowsy state, differences cannot be recognized, and it is proper for the teacher to employ any legitimate artifices that will arouse the pupil's mental activities from a state of indolence.

2. The energies must be directed in the right channel. There should be no waste of the mental powers from their being misapplied. There is a well recognized antithesis between the emotional and intellectual activities, which should never be lost sight of; strong emotional excitement is inconsistent with great intellectual energy; when emotion reigns, intelligence becomes its feeble slave. It is in our calmer state of mind that comparison or any other power of intellect works to advantage.

3. Some interest must attach to the difference or agreement to be recognized. It must be the reverse of insipid and uninviting that the mind may become alive to it, that a mental affection may be aroused.

4. Immediate succession or juxtaposition is a great aid to the discovery and retention of a difference or an agreement. When the transition is sudden, and the mind is not occupied with anything else in the meantime, so much the better for the detection. Magnitude, for example, is an affair of simple juxtaposition.

II. *GENERALIZATION.*—We find similarity in the midst of diversity, we detect like in the midst of the unlike; but there is a higher intellectual exercise than this. We find that several things agree in some particular. For example, if we stand near the fire we experience a certain sensation; if we place ourselves under the direct influence of the sun's rays we experience a similar sensation; if we lay our hand on the fevered brow, or subject a portion of the body to friction, a similar sensation occurs. Now the mind takes hold of these points of similarity (taking no account of the diversity of the circumstances in which the sensations occur), and unites them into one general idea, the name for such an idea being a general term. Half of our knowledge, and that the most difficult half, is obtained in this way. The child can compare and contrast before it possesses in any measure the power of generalization. The presence of the individual differences obscures the agreement and renders the discovery difficult.

Cumulation of the instances is of great use in driving home a generality. The oftener the point of agreement can be repeated, the more the instances can be multiplied, the greater becomes the certainty that an adequate idea of a general truth will be produced. In generalization the interest belonging specially to the individual examples is constantly competing for and obtaining a share of the attention, and seduction from this quarter must be guarded against.

The emotions should be calm and undisturbed, as it is only then that the higher intellectual exercises are possible. The learning of what is absolutely new is a difficult exercise it makes heavy demands on the plastic power of the mind, and as it involves a heavy expenditure, it requires time. There is, however, great similarity in nature and in art; if we learn all about one plant, for example, we can more easily learn all about all others of the same class. If we are thoroughly versed in the French language, we can more easily master the Italian.

With every increase of knowledge we make an inroad into what is new and lessen its territory, so that a great deal of what we learn is

the old in a new form, and the adhesive faculty has not to be drawn on to such an extent as at the beginning. Now it is a very useful and stimulating device of the teacher to make his pupils see the old in the new, to help them to recognize an old friend in a new dress.

III. *RETENTIVENESS.*—All mental acquirement, all increase of knowledge, is due to the fact that we are endowed with a retentive faculty. Every cognition has a certain permanence, and it can be repeated in idea, in other words, it can be remembered. Repetition and time are required to give an impression permanence. Constant reviewing is needed in all, but especially in junior classes. If one teacher can root an impression in the minds of his pupils by fewer repetitions than another, he is a better teacher. He is economizing in a very important department, viz., in the plastic power of the system.

One of the conditions favorable to the development of that power is good health. The system must be properly nourished, and the brain should receive its fair share of nutrition. It is said that there is a greater expenditure of brain force in rooting lasting impressions than in any other mental exercise. It is certain that the storing of the memory makes very high demands on brain energy, and consequently it must not be too long continued. The severity of the exercise is the reason for not prolonging it. We can go only a certain distance with any profit. There are times when we are utterly incapable of receiving lasting impressions, and yet the mind may have a fair share of reserve force. Although incapable of acquiring what is absolutely new, it may be capable of applying known principles to new cases, e. g., solving new problems. Reading from a book, noting and arranging new facts, may be done with a very small degree of brain force. The energy of the system is at its height in the early part of the day, and declines as the day advances. What is altogether new should be undertaken in the morning, the lighter tasks being left for the afternoon, and constructive and mere routine exercises for the evening. These considerations have a direct bearing on the formation of a time-table. The principle of alternation of studies, which will be mentioned again, should also have due weight when we draw up our time-table.

This development requires concentration. This word, in fact, sums up all the mental aids to retentiveness. Every new impression stamped on the memory involves, as we have already said, a certain expenditure of mental power, and the more the power expended the more ineffaceable is the impression. How necessary then that there should be no misapplication of power, no mental waste. The subject before us should receive all our attention. We should allow no rivals in the field. It being granted that our powers should be turned into the proper channel and kept there, the inquiry arises, what is the agent to be used for this purpose? and the further inquiry, how does this agent act? I answer (1) the agent to be used is the will, and (2), the will acts from motives. The chief motives which influence the will are pleasure and pain.

The most powerful motive to concentration is pleasure in *esse*—pleasure in the act itself. When the exercise is productive of pleasure, the will consents to the employment of all our mental force. Immediate pleasure is the feast enjoyed, and for the sake of prolonging this delightful feast, there is concentration of the mental powers on the proper object. Pleasure assists the memory also; an impression, when accompanied by pleasure, is more enduring; but the pleasure must not be intense, for it then becomes a disturbing element. A gentle and growing pleasure is the most favorable. Even should there be pain at first, and it should gradually pass into pleasure, the condition is not unfavorable to concentration.