

Ben Lomond immediately the idea of Prussian education suggests itself. Tracing back his ideas to a cause he remembered that he had once ascended that mountain in company with a German professor and that their conversation had turned on Prussian school-systems. The connecting link, viz.: the German professor, had dropped below the threshold of consciousness.

In the accompanying diagram, let the points A and C be the two ideas in the present mental state of consciousness, C having been suggested by A. They are really connected by B, which is an unconscious mental modification and has dropped below the surface, leaving the two ideas in the mind as apparently independent of any other factor. It is difficult to say how far below B is. The threshold is always shifting and the difficulty is to distinguish between consciousness and unconsciousness.

Association of ideas is a most important factor in education. Associate dry facts in history and geography with pleasing pictures and anecdotes and the one will suggest the other.

3rd. In habitual actions we see various stages of consciousness that seem to merge into unconsciousness. A young child learns the alphabet and gradually combines the letters into words, and words into sentences. When his mind is developed and he reads, is he conscious of the letters? Is he even conscious of every word? A business man, for instance, scans a column of the newspaper to learn some important facts, and he seems totally unconscious that a mental process of combining elements is going on in his brain. These details have become habitual, but how intimately these seemingly unconscious mental operations are connected with the conscious.

A fourth case of the kind is that when we have worked for a long time at a baffling problem and we rest for a time, on returning to it we not only are reinforced by fresh vigor, but we have advanced perceptibly towards the solution of the question at issue. This is almost inexplicable, but it may be that the mental activity having been excited to such an intensity, cannot at once cease to act, but carries on mental operations below the threshold of consciousness, which unconscious operations result in a solution of our difficulty when their effect is felt above, or in the region of absolute consciousness. The mind may be compared to a lake. Our conscious, mental operations are like the stirring of the surface-water. Below the surface of the lake go on motions which make themselves felt above, and so it is with mental facts. Those below the threshold of consciousness affect those above, more or less, according to their depth, until ultimately we reach the zero, which is unconsciousness.

ATTENTION OR CONCENTRATION OF CONSCIOUSNESS.

Attention is concentrated as distinguished from diffuse consciousness. The intension of consciousness is in the inverse ratio of its extension. We have only a limited fund of conscious energy, therefore the more we concentrate on one thing the less we have left for others.

The characteristic of mental life is variety. Attention is the opposite tendency, viz., to *fixity* and *unity*. It is the reduction of the natural variety or change of consciousness to stability. There is also a physical aspect of attention, viz., its prevention of movements. As we have only a certain amount of mental energy at our disposal, so we have only a limited amount of physical energy, and as attention in the former case means a withdrawal from some things to concentrate our consciousness on others, so the latter means the same.

Take any child at school; you must control his muscles if you will control his mind. His physical activity interferes with his mental operations, therefore his physical attention must first be gathered up and then his mental attention can be secured.

There are two kinds, or degrees, of attention. The first is defined as spontaneous, non-voluntary, automatic, reflex. This is also called effortless as there is no play of the will.

Reflex attention is the result of an action which attracts our attention.

Automatic or mechanical attention is opposed to voluntary. These sorts of attention are merely the re-action of the mind in response to stimuli, and we cannot help this re-action.

There are two sets of conditions which determine our spontaneous consciousness as to its intensity, viz: the character of the stimulus, and the character of the person who receives it; in other words the character of the object, and that of the subject.

As regards the character of the object.

1st. The *quantity* of the stimulus determines the amount of attention it excites.

2nd. The *quality*, namely: whether it be disagreeable or the reverse.

3rd. Contrast between the present stimulus and the past, e. g.: noise in stillness.

4th. The novelty of the stimulus, which is closely connected with contrast.

5th. Familiarity. Anything entirely novel is, to the majority of individuals, not interesting. There must be at least some relation to familiar objects.

6th. Association or connection of the present stimulus with past stimuli.

The character of the subject stimulated is as important as that of the object. By noting what stimuli affect a man, and in what manner, we can determine his character. Individual minds are affected differently by the same stimuli.

Imagine three men, a botanist, an artist and a farmer, walking along the same country road. How differently the objects met with will appear to their individual minds. Each tiny blade of grass and every minute blossom which the others would trample in the dust, will arouse the mental activity of the botanist. The artist notes the glowing tints of the sky and the picturesque grouping of the objects in the landscape, while the minor details escape his notice. If the farmer, too, gaze at the firmament it will probably be to read there the weather signs, that will promise him an abundant harvest, or the contrary; or if he survey meadows and groves, it will be not to admire their beauty but to conjecture their practical value. Thus each mind can in its individuality follow out the designs of the great Creator of the universe.

The second form of attention is voluntary or artificial attention as distinguished from natural attention. The main difference between this and the former is that the one is non-voluntary or accidental, while the other is voluntary or intentional. We attend for a purpose, for some end. The main source of the first kind of attention is from without, the second from within. Here we find that the all-important thing is the subject.

Formal attention depends on two things: 1. The amount of mental energy available. 2. The presence of an object fitted to call forth this energy.

Voluntary attention has great effect on the mental life even by physical means. For instance, a soldier who receives a wound in battle is often unconscious of it for some time. In