

## PSYCHOLOGICAL LITERATURE.

### MEMORY.

*Ueber das Gedächtnis für affectiv-bestimmte Eindrücke.* KATE GORDON. Archiv f. d. ges. Psychol., 1905, IV., 437-458.

*Bemerkung zu vorstehender Abhandlung.* O. KÜLPE. Ibid., 459-464.

Miss Gordon's experiments were undertaken to determine if possible whether the pleasantness or unpleasantness of certain visual sensations has an influence on the *accuracy* of the memory of these experiences. As material the experimenter used series of colored figures, of simple symmetrical designs, which were shown to the subject for a certain length of time and then immediately described by him. The test of memory was the accuracy of this verbal description. Each figure was classed according to the introspection of the subject as pleasant, unpleasant, or indifferent, and also, because of unavoidable differences in the ease or difficulty of comprehending the several figures, as hard, medium hard, or easy. Each series was repeated after an interval of three weeks.

The conclusions were almost entirely negative. No real difference could be detected between the pleasant, unpleasant, and indifferent cases, either in accuracy of memory or in the per cent. of figures recognized when seen for the second time. The only difference observed between pleasantness and unpleasantness was a tendency to remember earlier experiences as pleasanter than they really were. This, in the writer's opinion, is the true meaning of the so-called 'optimism of memory.'

In discussing her results in comparison with those of other investigators, Miss Gordon draws a distinction between a direct and an indirect influence of affective tone on memory. She is of the opinion that although an affective tone cannot be proved to influence directly the reproducibility of an impression, yet by affecting the attention it does 'tend to bring about the conditions for an act of association.' It is not clear from the context whether the conclusion drawn in the clause just quoted is an inference from the experimental results or is an assumption based on general observation.

In a brief article following Miss Gordon's, Professor Külpe indi-

cates the most important results of these experiments. He points out that (1) the conclusions agree with a large group of facts, designated as the 'emancipation of the intellect and will from the feelings of pleasantness and unpleasantness'; that (2) the pleasantness or unpleasantness of an experience has no effect on the recognition of that experience. Pleasantness and unpleasantness as such are not sufficiently differentiated to serve as a clue for recognition.

In criticism of the experiments Külpe notes especially the fact that the method used for classifying the figures, according to the individual opinion of the subjects, introduces variations which are not taken account of in the results.

Another criticism of the experiments, not mentioned by Professor Külpe but one which seems to the reviewer to be of importance, is the fact that the very complexity of the figures necessary to produce any feeling of pleasantness or unpleasantness in the subject made it difficult to trace any direct influence of those affective values on the memory. Each figure *as a whole* had affective value for the subject, but it was the reproducing of the *details* of the figure which served as a test for the memory. From the outset, therefore, the real problem concerned the influence which the affective tone of a complex experience has on the attention to the details of that experience, and thus, indirectly, on the accuracy with which it is remembered. Miss Gordon does not seem to distinguish between the affective values of the whole and of the parts.

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*Zur Frage über den zeitlichen Verlauf des Gedächtnisbildes für verschiedene Sinnesreize.* GISELA SCHAEFER. Zeitsch. f. Psychol., 1906, XL., 55-73.

The author describes the outcome of a series of experiments designed to show the relative value of auditory, visual and tactile sensations for memory. The subject reproduced, at certain intervals, different time-periods transmitted to him by means of an incandescent lamp, electric bell or faradic shock. For auditory sensations, 43 experiments were performed, with 19 persons; for visual, 28 experiments with 23 persons; for tactile, 14 experiments with 11 persons. All persons experimented on were students, physicians or lawyers. The difference of sex does not show any effect upon the results of the experiments.

In summing up the results of the experiments, reactions are called correct when they show a more or less exact reproduction of the time-