

structing a theory of paramnesia. It is inconsistent with Lalande's theory,¹ as well as those of Anjel and Jensen,² unless the memory plays the part of the original perception. The theory of imperfect reminiscence filled out by suggestion is allowable, but does not give a complete explanation.

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MEMORY AND ASSOCIATION.

I wish to make a correction and comment briefly on Miss Calkins' interesting report of a study of memory and association and comparison with similar experiments made by myself. In no instance did I give the number of words correctly placed *in order* in each group, but only the numbers placed in the *right column* or group, as the auditory or the visual; hence her comparisons are not quite correct, and her statement that the Wellesley results do not substantiate the conclusions that "the number of concretes 'recalled' and the number 'recalled in order' would be under ordinary conditions practically the same" is a misquotation and indicates misapprehension. I make no reference to the number 'recalled in order,' or to 'ordinary conditions,' but merely indicate that there was in this experiment practically no false recognition or placing in the wrong column of the concrete objects.

It is interesting to note how nearly the results of the two experiments agree. The better memory of the Wellesley students is probably due to the facts that the external conditions were more favorable and the students more interested in the experiment than the college students tested by myself. It seems to me very probable that the smaller advantage in favor of 'concrete' found by Miss Calkins is due in part to another fact than that mentioned by her, *i. e.*, she used pictures of objects while I used real objects. It would be interesting to know just how much difference this would make when all the other conditions are the same. I suspect that the order of increasing effectiveness would be names of objects, mental pictures of objects, real pictures, the objects themselves.

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¹Lalande: *Des Paramnésies*, *Revue Philosophique*, XXXVI., 485. Reviewed by James, *PSYCHOLOGICAL REVIEW*, I., p. 94.

²Krapelin: *Arch. f. Psych.*, 400, in Parish: *Hallucinations and Illusions*, p. 280.