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SYNESTHESIA

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Alford (1), after briefly reviewing some of the previous work upon synesthesia, describes an experiment he performed upon male twins, twenty-seven years of age, who associated colors with the names of persons and, as became evident during the course of the experiment, also with letters, numbers, days, months, and with a few of the cities. The twins were very much alike mentally. They also had the same likes and dislikes and had had a similar education, so that they seemed to the author to offer an excellent opportunity of discovering whether the phenomenon is due to some peculiar mental characteristics, to suggestion or to some merely accidental cause. Both of the men had a very good college record and were above the average in memory ability.

A list of 150 names, chiefly Christian names, was read to each and they noted the colors which were aroused. The color seemed as distinct to them as if it was "a colored object" and was not projected, but "seen in the mind." The reason for association could be discovered in the case of only a few of the colors such as Sue, blue; Flora, red, etc.

Of the 80 words which produced satisfactory responses there was an approximate agreement between the twins in the case of 54. One subject was tested again after three months and he made only two distinctly different reactions. In the second trial, however, he failed to respond to 19 words as against 7 words in the first trial. The author concludes that although there was 70 per cent. agreement, this agreement should have been much higher considering the small number of colors used in the associations and the numerous opportunities the twins had for similar experiences, and that, therefore, neither suggestion nor similarity of mental make-up can be considered the cause of synesthesia. He adds that if a more exact determination of the quality of the associations had been made there would have been even less agreement.

Peabody (2) sent a questionnaire to the members of the American Anthropological Association and of the American Folk-Lore Society and to several institutions, asking the following questions: (1) Whether in thinking of the numbers from 1 to 50 they arranged them in any definite shape or in a straight line; (2) whether they thought of the hours, days and months in a straight line, curve, circle or any other form; (3) whether they arranged the letters of the alphabet in their mind in any form. They were requested to illustrate if possible the arrangement they were accustomed to make. He received a hundred and sixty answers which he could use.

As was to be expected numbers and letters were most frequently arranged in straight lines either horizontally from left to right or perpendicularly from top to bottom of the page. It was not so clear to the author why the days were arranged more frequently in lines than the months.

48 per cent. of the subjects arranged the hours in a circle, clockwise, which left 52 per cent. who "resisted or escaped such an obvious stimulus to the imagination." Approximately 32 per cent. of the months, 21 per cent. of the numbers, 20 per cent. of the days, 13 per cent. of the letters, and 11 per cent. of the hours were arranged in some form or shape other than straight or broken lines. This ranking is in agreement with the results obtained both by Calkins and by Phillips. In the tabulation according to the more striking visualizations the months ranked first, followed by the hours, days, numbers and letters. Of the 160 answers 46 per cent. contained some sort of form. As many did not send in answers the author, on the basis of the results obtained, calculates that about 25 per cent. of all individuals possess some form of visualization of

one or more of the ideas investigated, although this may be somewhat too high. Many who had no form under one title possessed several under another. A number of illustrations of the forms reported are presented in the article.

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