

Revue Scientifique, contributes a full account of his varied and elaborate researches in this new field.

These experiments, coming from so eminent an experimenter, made with a sound knowledge of the sources of error inherent in such work, and presented with a pleasant modesty, are worth the consideration equally of those who do not agree with the conclusions of M. Richet¹ and of those whose views are strengthened by these new experiments. M. Richet has been pursuing this investigation for six years, and, if he has been deceived by his subjects, it can only be that the topic presents an unusually puzzling and deceptive aspect.

After an introduction dealing with the precautions to be taken, and emphasizing the fact that at bottom we must trust to the honesty of our subjects, he can do no better than ask the reader to take his word for the observed good faith of the subjects, and equally well assure the reader that he has ever been on his guard against that greatest of wonder-workers, 'unconscious self-deceptions.' Furthermore, we must require only such a degree of probability for our results as would be satisfactory in other sciences. The slightest defect invalidates the whole observation, and a well-established, not very wonderful result is to be preferred to a striking one less securely established.

His subjects are four hysterical women between the ages of twenty-one and forty-five, all subject to hypnotism, and some with a tendency to natural somnambulism, and other signs of an unstable nervous constitution. The first test consisted in willing the patient to go to sleep, M. Richet being at a house five hundred and fifty yards distant. On going to the house he puts the subject to sleep, and she tells him that for a certain twenty minutes of the morning he was trying to put her to sleep, and that she went to sleep. The time is approximately correct. The experiment is varied, and the coincidence of the time of M. Richet's willing and of the patient's sleeping varies from a remarkable exactness to quite wide approximations. However, M. Richet is convinced that the successes are more numerous than can possibly be explained as due to chance. Between coincidence and telepathy, he chooses the latter.

Very many attempts were made to transfer a simple drawing from M. Richet's mind to that of the subject. Many illustrations of the result are figured, and without such illustrations it is useless to describe the result. But the new fact that M. Richet records is that the experiment succeeded nearly or quite as well when he was ignorant of the design contained in the envelope as when he knew it. Here thought-transference is out of the question, and M. Richet has recourse to the theory of a sort of clairvoyance to which he gives the generic name of 'lucidity,' a vision in which the ordinary optical impediments no longer act as such. It must be added, that as a rule the subject did not draw her reproduction, but described it part by part, and it was drawn by M. Richet. Selections from the most successful sixth of the results are alone described. Moreover, the very admirable plan was adopted of experimenting with normal subjects by selecting sixty designs, and recording the good results. For seven successes in two hundred with these subjects, he can show twenty with his selected subjects, so that the normal degree of success is to some extent ascertained.

Another and very questionable form of test was to have the subject, either in a normal or hypnotic state, describe the disease of a patient thought of, or a lock of whose hair was shown. The descriptions are in vague terms, and the amount of success is by no means remarkable.

Experiments were made in which the letters of an alphabet are moved over by one person, while a group of persons sit at a table, and the letters are recorded at which the pen stopped when the table moved under the more or less unconscious impulse of the sitters. When these letters are put together, they form a more or less close resemblance to what was thought of or asked for. The fact that sentences thus emerge, if fact it is, is certainly extremely wonderful.

Experiments with cards were tried; and the success in guessing the color, the suit, and the grade, compared with the success by

chance, yields the result that no evidence of 'lucidity' is present. The guessing of names was no more successful. Other observations of a miscellaneous character, and dealing with coincidence, are recorded. These give one the feeling that a great many wonderful things have been happening to M. Richet since he has become interested in this study.

M. Richet takes the position that chance or a new mode of mental action is the only way of explaining the results. This is far from self-evident. On the contrary, it is infinitely more probable that a natural mode of explanation has escaped our observation, and especially so in this unexplained region of mental phenomena. We know, as M. Richet points out, how very shrewd subjects are in anticipating results by unconscious suggestion, and the limits of this power have by no means been reached. We ought, then, to so arrange our experiments that this power finds no field for application. It is not sufficient to refrain from all conscious intimation of the expected result, but this result must not be capable of any such intimation. It is in this point that M. Richet's experiments are sadly deficient. Instead of finding when his subject went to sleep by her account of it, let a schedule be arranged that five times per day for a period of fifteen minutes he should will the distant subject to sleep; then let the hours be determined by hazard, and record the result. Everywhere we require simplicity of conditions with the amount of success due to chance precisely calculable. It is striking that the card experiments, which alone answer this condition, are entirely negative in result. Again, the drawing experiments are useless until we have a system of calculating successes. The designs are largely the combination of a few elements; and if, as M. Richet at times does, we calculate the appearance of one of these elements as a partial success, it is easy to prove telepathy. Finally (for objections could be indefinitely multiplied), the inference from the fact that success was obtained when the operator did not do the drawing, is not that we must suppose lucidity, but that this is excellent evidence against telepathy, and strongly suggests that the percipient has some method of seeing enough of the design to get three times as many as the normal number of successes. The problem is by no means a simple one, and theories of any kind are premature. In maintaining a scientific interest in such phenomena the Psychic Research Society is performing a very useful function.

THE PSYCHOLOGY OF SPIRITUALISM. — In the July number of the *American Magazine*, Dr. Allan McLane Hamilton writes to the point in reference to the delusion which has recently figured in the law courts. He shows the relationship of this to other psychic delusions, and describes the conditions under which false mental images arise, and lead to the weakening of the judgment.

BOOK — REVIEWS.

The Constitution of the United States, with notes. EDWIN D. MEAD. Boston, Heath. 16°.

THE proprietors of the Old South Meeting House established in 1883 a series of lectures on historical and political subjects, with the special object of instructing the young. The lectures have proved popular, and are doubtless doing good; so that the hope is now entertained that they will be permanently continued, and will give rise to other courses of like character elsewhere. In connection with these lectures a series of pamphlets have been issued, called the 'Old South Manuals,' of which this copy of the *National Constitution* is one. It is of convenient size and well printed. The notes are historical and bibliographical, and though of necessity brief, they convey a good deal of information, and will be specially valuable as showing the student where to go for further instruction. The editor of the work, as well as the managers of the lectures, take a broad view of the subject with which they deal, and are not among those who think that American history and politics can be studied apart from those of the world in general. The vital connection of our institutions with those of England is fully apprehended by Mr. Mead, and several of his notes are devoted to this subject. The leading authorities on both English and American constitutional history are pointed out, and the student who wishes to pursue the subject thoroughly will find this little book a sufficient and trustworthy guide.

¹ The present writer counts himself among this number, and, inasmuch as it is impossible to eliminate individual opinion in so new a question, will criticise the experiments from this negative point of view.