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An Introduction to Experimental Psychology. By C. W. VALENTINE. London: University Tutorial Press. Pp. 190 + vii.

This little book is chiefly concerned with the application of experimental psychology to educational problems, and to the work of the teacher in the school. Hence it is of only indirect value to psychiatrists. The clinician will, however, find in it many hints which can be turned to account in the examination of his patients, and it will enable him to devise tests and methods of great assistance in his investigations.

devise tests and methods of great assistance in his investigations. The book is divided into two parts. The first contains detailed instructions for carrying out the various experiments, while the second deals with their theoretical and practical significance. All the experiments are capable of being carried out without apparatus, or, at most, with apparatus that can be constructed in a few moments with pen and paper. BERNARD HART.

Occultism—A Review.

Where do we stand to-day in our attitude towards occult mattersno better generic term being available? What knowledge have we of the existence of communications between ourselves and discarnate beings? What actual knowledge—apart from faith—have we of the continuity of human existence? What knowledge have we of the psychic powers inherent in ourselves ? Since the middle of the nineteenth century, a large and increasing amount of investigatory work has been done towards the elucidation of these problems, and it is at all events a hopeful sign of our mental progress, that the proportion of those who regard all serious inquiry in this direction as utterly futile and indescribably absurd, is a daily decreasing one, and the storm of peevish derision that was aroused by the publication in the Quarterly Journal of Science in the early seventies of the results achieved by Sir William Crookes, looks to us remarkably ignorant in the light of the calm approbation with which the extraordinary results attained recently by certain savants, notably Professor Ochorowicz, have been generally received. There are so many people who are genuinely anxious to know what is really the present stage to which knowledge has advanced, that it seems a short survey of the conclusions at which investigators have arrived would not be amiss, especially as we in this country are a little behind in these studies, and just as the curative possibilities of hypnotism are only now beginning to be used practically here, while in France they are almost a commonplace, so in this country the majority of people are either sceptics or convinced spiritualists. The former are merely ignorant, and of their ignorance nothing further can be said, except that it is necessarily ignorance of a dense form, in view of the ample sources for its alleviation at their disposal; but for the spiritualists there is much to be said, seeing how most of the phenomena of occultism have every appearance of the intervention of outside intelligences to anyone who does not know of the strange developments of which subconsciousness is capable under certain conditions, commencing with hypnotism.

Through all the stages of the world's history there have been people

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who have been blessed or cursed—according to the popular view obtaining at the time—with supernatural powers, using the expression to mean something more than our every-day conception of what is natural. The experiences of the saints are redolent with psychic faculties, and they were then mostly ascribed to Divine intervention. Later, similar experiences were regarded as satanic, and the unfortunate subjects were correspondingly punished: nowadays, they are considered to be either "mediums," *i.e.*, convenient vehicles used by discarnate beings who desire to communicate (mostly with beneficent intent) with us, or "subjects" for the profitable investigation of scientific men. (Among the sceptics they are, of course, known as "frauds.") And perhaps all three designations are true of different individuals always, or of the same individual at different times.

There can be no doubt in any reasonable, well-read man's mind that strange things do undoubtedly happen, either to certain people, or in their presence, and these strange things are divided into two broad classes: those which are subjective, or manifest themselves to the subject's own consciousness, and leave no physical trace of having taken, or of taking place, and those which are objective, or are accompanied by some physical disturbance, or leave some physical trace. In the former category may be included visions (clairvoyance), sounds (clairaudience), feelings of different kinds, trance, premonitions, telepathy, and psychometry; in the latter-apparitions, sounds perceivable to others, movement of objects without contact, and all the host of happenings which are known as physical phenomena. Obviously, the latter are susceptible of proof, and the former may be so, but with greater difficulty. Both categories have been proved to exist, and the only thing that remains to be ascertained is whence they arise. Now in England, speaking very broadly, they are generally taken to be sufficient proof of the intervention of discarnate beings-hence the belief of spiritualists, and to anyone who comes fresh to the subject that would be the logical and only possible explanation of quite a large majority of instances. But, commencing with the study of hypnotism, we find that in certain conditions, such as hypnosis, a deeper stratum of the human mind seems to be disclosed, in which it acquires powers far beyond those of its normal condition: it can (only with certain individuals and under certain conditions) report what is passing at a distance, read writing which is sealed to the eye, measure time, assume a totally different character, and, most important of all, obey commands made, even to the extent of obeying them after awaking. So strong is the obedience that, by this means, the beating of the heart can be retarded or accelerated, and a finger laid on the arm of a hypnotised subject, and stated to be a red-hot iron, will raise a blister.

This deeper stratum of the mind is called the subconscious mind, and the important point, upon which all serious modern inquiry is based, is that it can be reached by other means than by hypnotism. It would appear that we all have this deeper layer of mind, but that we differ in the extent to which our normal mind can communicate with it, or to which it can surge up in our normal consciousness. In some the communication is only established during trance, which can be brought about by many causes in addition to the hypnotist's command of **REVIEWS.**

"sleep!" His is merely a very strong suggestion; and auto-suggestion, the suggestion of circumstances, or any other form of suggestion may produce the same effect, and, to those who are not aware of the efficacy of these more hidden forms of suggestion, their result appears to be clearly the work of unseen entities, and the communication given appears naturally to come from them. The proof that in most cases it is not so is difficult to state in a few words. It is a cumulative proof, and starts from the curious likeness between the messages thus received and those given by a hypnotised subject, the general triviality of the subject matter, and the absence of any knowledge that is not shared (known or unknown) by any individual present.

If, however, there are communications from the discarnate beyond the rare instances of appearances of the dying and dead and other unsought phenomena, it is evident that, as they are not received through the normal channels of our every-day senses, they must come through some of these super-normal states of consciousness, *i.e.*, through some of the conditions of so-called mediumship, and these conditions exist when the subconsciousness has been opened up either intentionally or automatically. The phenomena which then manifest themselves may thus have their origin merely in the subconsciousness itself, or might be due to some other intelligence acting upon the subconsciousness. In order to ascertain the real source of any such phenomenon each individual instance must be specially studied by itself, and it is extremely difficult to preclude the possibility of a purely subconscious origin. This is what has to be done, however. It is no longer interesting to obtain phenomena, except perhaps once or twice, in order to have an opportunity of witnessing the strange things about which one reads; as one can now hardly doubt that they do happen, there is no particular satisfaction in making them happen again, or in proving that this or that particular medium is a genuine one. The truly interesting work is to endeavour to obtain instances which cannot possibly be accounted for by the action of the subconscious mind. A disheartening point about this is the logical assumption that, inasmuch as phenomena which a little time ago would have been, and actually were, taken as absolute proof of discarnate intervention, have now been proved to be well within the possibilities of the subconscious mind alone, similarly, anything which we may now obtain in the nature of proof may a little later be shown to be still within the subconscious domain. Well attested and strictly supervised cases of the movement of object without contact were, for instance, formerly regarded as conclusive evidence that discarnate beings were at work, but Dr. Ochorowicz has now found, photographed, and proved to the satisfaction of a committee of naturalists, the existence of psychic rays, which he calls "rigid rays," between the hands of a young medium, Mlle. Tomczyk, which have the power of moving objects.

The two popular points of view are admirably illustrated by the fact that an Ecclesiastical Commission was recently appointed to inquire into the conduct of a certain Anglican clergyman, whose sermons on spiritualism attracted attention. Here we have the convinced spiritualist, who obviously could not preach general spiritualism if he realised even a part of the result of modern research, and the anti-occultist, who must either be ignorant not only of such results, but also of the very existence of occult phenomena, or else realise their existence, and ascribe them to a superstitious source.

Those who are drawn to further investigation should take no practical steps until they have read the following works in the order stated: *The Law of Psychic Phenomena* (Hudson), *The Survival of Human Personality* (Myers), and *Metaphysical Phenomena* (Maxwell). Varieties of Religious *Experience* (James) can be added with advantage.

L. HALLIDAY.

Part III.—Epitome of Current Literature.

1. Physiological Psychology.

The Integrative Functions of the Nervous System applied to some Reactions in Human Behaviour and their attending Psychic Functions. (Transactions of the American Medico-Psychological Association, 1914.) Edward J. Kempf, M.D.

The object of this paper is to harmonise certain psychic functions with physiological and integrative functions of the nervous system.

When emotions are intensely generated they always cause more or less derangement of the habitually used modes of psychomotor expression. When nervous energy caused by the emotional state cannot find its characteristic outlet through the voluntary motor system, it overflows into the involuntary muscular system. The following example is given: "A physician was fishing one morning just after eating his breakfast. He hooked a goodly sized bass. After a pretty fight he succeeded in drawing it up to the side of the boat, but as he tried to land the fish it unfortunately escaped. A minute or two later he was rather surprised by the unexpected regurgitation of his breakfast."

Whatever view is held regarding the physiological mechanics of emotion the following factors are constantly present:

(1) The emotional state is aroused by some kind of cerebral stimulus. (2) It is a type of reflex action. (3) It involves essentially the cerebral adjustment towards essential changes in the viscera, glands, and vasomotor system. Viewing emotion in the light of a reflex there are two great groups of effector (Sherrington) cells. Those connected respectively with the voluntary and the involuntary muscular systems—for example, in anger, if the discharge is inhibited from the voluntary system the viscera and vasomotor systems receive the surplus of the discharge, and may cause disturbances of a severe and lasting nature.

The work of the analyst must be devoted to readjusting the ideas which cause the repression of the affect from the voluntary system. The paper then goes on to show that the symptoms of the psychoneurosis are due to repressed complexes, and can be explained in the psychic field in a manner similar to the work of Sherrington (*Integrative Action*)

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