

imaginative talent which has led Mr. Wallace and Mr. Crookes to make original discoveries in their own subjects becomes a disqualification rather than an instrument of research, when applied to a field of enquiry where negative criticism is most required. The testimony of men of science, however eminent, lends small authority to the stories of spiritualistic miracles, especially when such miracles have no connexion with the special studies of such witnesses. Much more importance is to be attached to the general surroundings of the case, and the presumptions of educated experience.

Both these books consist almost entirely of papers contributed at various dates to different journals, and the disjointed fragments are not pieced together with a coherence worthy either of the character of the authors or the significance which they themselves attribute to their subject. Mr. Wallace by no means confines himself to the spiritualistic phenomena which have occurred under his own observation or in our own time, but stretches his hypothesis in a most elastic fashion to all the occurrences in ancient and mediaeval history which have ever been reputed to be supernatural, and tries a fall with Hume upon the definition and the possibility of a miracle. Mr. Crookes confines himself to the recital of phenomena to which his own eyes and ears have borne him witness, but equally puzzles the uninitiated reader by the suddenness of the leap which he takes from the simpler phenomena of mediumship to the most advanced instances of what is called in the spiritualistic jargon "materialisation," passing at the same time from the attitude of a scientific sceptic to that of a religious enthusiast. A general suspicion thus attaches to what may perhaps be called the intellectual sobriety of these gentlemen—a suspicion which will probably be confirmed by a close examination into the character of the occurrences to which they bear unhesitating testimony.

We do not propose to quote from the personal experiences of Mr. Crookes and Mr. Wallace. It is sufficient to say that the phenomena which they each relate took place in the ordinary way, with mediums whose names are known to the public, and in the presence of small select parties. They commenced with the simplest forms of an unknown force acting upon external objects and tested with accurate instruments, and passed, by regular gradations of ever increasing complexity, into the visible manifestation of ghosts, and *viva voce* communication with another world. Phenomena of this kind have in the last few years been repeatedly observed by such a cloud of witnesses that it would be idle to deny that the witnesses honestly believe that those occurrences actually took place which they assert that they saw and heard. It may further be admitted that those who have not themselves seen these phenomena have no good grounds, defensible by strict logic, for refusing to believe because they have not seen. In all ordinary matters, whether of science or of common life, such evidence as is offered would have overwhelming validity, and would at least be entirely sufficient for what is called moral

*On Miracles and Modern Spiritualism.* Three Essays: by Alfred R. Wallace. (London: James Burns, 1875.)

*Researches in the Phenomena of Spiritualism.* By William Crookes, F.R.S. (London: J. Burns, 1874.)

THESE two little volumes, which contain in the aggregate somewhat over 300 pages, are intended to give a convincing exposition to a sceptical world of the strange phenomena, and the body of beliefs based upon them, which pass under the name of Spiritualism. Each of the writers has highly distinguished himself in the domain of positive science, and it would be an injustice to their reputation not to examine with more than usual impartiality the marvellous story which they have to tell. At the same time a protest must be entered against the common prejudice that a training in the physical sciences affords any absolute guarantee even for accurate observation in alien studies. Indeed, the

certainly. If we were in all other cases to withhold our belief from similar testimony and to demand ocular or tactual demonstration, the business of this world would come to a standstill, and science would be limited by the experience of each individual student. In this case, as in the rest, we ought to accept facts, if sufficiently attested, as facts, and to trust to our general powers of logic to draw the distinction between fact and inference, and to discriminate between that which is in harmony with the general laws of science, though not yet comprehended within any particular science, and that which opposes itself to scientific uniformity, and involves self-contradiction in its very terms. When Mr. Crookes, Dr. Huggins, and Serjeant Cox assert, with all scientific accuracy of detail, that in their presence, in broad daylight, the weight of physical objects was altered under the influence of Mr. Home, we have no more reason to be sceptical about the fact than when Mr. Crookes, before the Royal Society, demonstrates that the admission of light-rays upon a properly balanced object will produce motion in that object. In either case we are brought face to face with a new phenomenon attested by unimpeachable evidence; and in either case it would be equally childish to deny its existence, or to require that it should be repeated afresh for the benefit of each new comer. The explanation of the phenomenon opens quite another question. Whether the optical discovery of Mr. Crookes has disproved the undulatory theory of light, and whether it will exercise any important modification in the doctrine of the conservation of forces, are questions which may admit of rational discussion and intelligible differences of opinion. Similarly it may fairly be argued whether the alteration in the weight of an object apparently due to the influence of Mr. Home was caused by "psychic force," by jugglery, or by the intervention of an intelligent, unseen agent. To inquire into the cause of this phenomenon and other so-called "spiritualistic" occurrences of an equally simple character may be a not improper field of scientific investigation. To those, however, who acknowledge the relative utility of different branches of scientific research it will seem pardonable that busy men should refrain from devoting "months" of their time towards ascertaining the laws, if there be any laws, of these capricious phenomena, which are disconnected from practical advantage, out of harmony with kindred branches of science, and inextricably involved with another class of manifestations, which it now remains to characterise.

It has been already said that the simpler phenomena pass by a graduated scale of complexity into the more difficult; and, indeed, it is almost impossible to fix a precise line of demarcation between the two classes. Yet there are many independent considerations which lead to the conclusion that an essential distinction does somewhere exist. One most striking circumstance is that the more purely spiritualistic phenomena—such as the appearance of figures visible to the human eye, capable of resisting contact and of being photographed, or the

sudden introduction of flowers, &c., into a closed room—are usually, if not always, manifested under circumstances of great suspicion. They seem to require for their effectual display, first a medium of unusual skill and much experience, and, secondly, a long course of training in the art of spiritualistic investigation on the part of the observers, who are not inaptly styled the "assistants." Neither of these conditions is inconsistent with the accepted hypothesis of the spiritualists, but they are absolutely required by the rival theory which finds its explanation in a combination of the elements of delusion, illusion, and collusion, varying in their proportion in different cases. The circumstances of one of these advanced *séances* are so disturbing, the force of emotional contagion, and the possibility of a common hallucination are influences of such powerful though unknown operation that the powers of observation of any man may easily become unhinged in such a crisis. When once the balance of the mind is turned, it is but an ordinary consequence that the wish should become father to the thought, and the distinction between fact and inference be hopelessly blurred. The easy hypothesis will be at once accepted, and forthwith mould the facts according to its fancied requirements. The line, therefore, between truth and delusion may be drawn at the boundary between the (possibly) natural and the (supposed) supernatural. The boundary may shift according to the exigencies of scientific progress, yet it will always remain sufficiently clearly marked to separate the honest man from the knave, the cool observer from the dupe. This conclusion is apparently identical with that which was adopted by the majority of the Committee of the Dialectical Society, and with that which, during at least twelve months of investigation, seems to have recommended itself to the judgment of Mr. Crookes himself. It will not, of course, prove acceptable to such thoroughgoing advocates as Mr. Wallace. But that there can be no common ground of conciliation between Mr. Wallace and unbelievers is made clear by the whole tone of his book, as well as by such passages as the following:—"Spiritualism is an experimental science, and affords the only sure foundation for a true philosophy and a pure religion." "It is no small thing that the spiritualist finds himself able to rehabilitate Socrates as a sane man, and his demon as an intelligent spiritual being who accompanied him through life—in other words, a guardian spirit." "Having repeatedly listened to three of the trance-speakers who have visited this country, I can bear witness that they fully equal, and not unfrequently surpass, our best orators and preachers." With a religious faith like this it would be vain to attempt to argue; yet without wanton injury to such feelings, the critic must examine, as best he can, the facts upon which they are based. Some among these he finds to be authenticated by respectable and numerous witnesses; and he recognises that, although they have been by no means as yet built up into a body of scientific truth, they touch in some of their aspects upon the acknowledged but obscure subject-matter of mesmerism

and clairvoyance. He is not bold enough to deny that there may remain an infinity of forces in nature of whose operation we have not yet discovered a trace, and he will therefore regard the reports of elementary *séances* with a tolerant interest. As to that other class of phenomena which must be jugglery if not produced by unseen intelligent beings, he can defend his scepticism upon sufficiently sound principles. He can enumerate the many sources of the fallacy of mal-observation to which such occurrences are necessarily open, and he can steadfastly refuse to accept that hypothesis which has come down to our days tainted by the superstitious trickery of countless generations, and of whose existence as a *vera causa* we can have no other evidence than the supposed facts themselves. He will probably take refuge in the belief that the more highly developed of the mediums are expert impostors, who have found their career in taking advantage of that reckless credulity which experience shows us to be sporadically displayed in all ages of the world, and in all classes of society.

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