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THE PSYCHIC RESEARCH QUARTERLY

VOL. I, NO. 1 : JULY, 1920

We do not feel that any apology is needed for introducing THE PSYCHIC RESEARCH QUARTERLY to the public. Interest in our subject is almost universal, and there is an unmistakable and increasing demand for trustworthy information about it—a demand which, at the present time, is very imperfectly satisfied. The official publications of the various Societies for Psychical Research are of the first importance to students, but they are comparatively inaccessible and are often obscured by a mass of necessary detail which makes them anything but easy reading. As a consequence of this, most people derive their knowledge of the subject exclusively from the lay Press or from professedly Spiritualistic journals. Of these, the former is commonly concerned with effect rather than with accuracy, while the latter are already committed to definite solutions of many of the most important problems involved.

There is, moreover, a serious lack of reasoned criticism and discussion; for, although attacks on the Spiritualistic position are common enough, it is very unusual for those who launch them to display even the slightest knowledge of the relevant facts. We hold no brief for Spiritualism—on the contrary, we believe that it is possible to make out a very strong case against it—but it is impossible reasonably to maintain that there is *no* plausible foundation for its doctrines.

It will be as well to make clear just what our view of the present situation is. We believe that the problems of Psychical Research are among the most intricate and the most important with which the human intellect has ever grappled—quite the last which any prudent

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man should select as a subject for dogmatic pronouncements. Among them is the task of determining the true causes of a variety of phenomena which, *prima facie*, appear to be due to the continued activity of deceased persons. It is no use saying that such an origin is impossible or absurd; the matter is one for evidence, and for evidence alone—including, of course, legitimate *a priori* considerations—and those who have most critically and thoroughly studied the subject are the first to admit that the evidence in favour of this "spiritistic" view is of a very high order both in quantity and quality. This evidence may be inconclusive, as we ourselves are inclined to believe; it may, on closer examination, prove definitely unsatisfactory; but only ignorance or prejudice will deny its existence.

We believe, further, that it is by no means so easy to account for the facts in terms of "Telepathy" or "subconscious mental activity" as some critics seem to imagine; any competent Spiritualist can produce perfectly reliable evidential matter which these facile theories will fail to explain. There is, indeed, no simple formula which will enable us to give a neat cut-and-dried explanation of every evidential fact. The true case against the spiritistic view is rather that our knowledge of what the incarnate human mind can achieve on occasion is not yet sufficient to warrant our assigning definite limits to its powers—powers which modern Psychology has already shown to be much more extensive than we once suspected. Until we can fix these limits with reasonable precision it is rash to claim that a given phenomenon transcends them and must therefore be due to discarnate influences. This objection is admittedly vague, but we believe that it is valid and, at the present time, insuperable. But Psychology—the science of mental states—is making rapid progress, and it may well be that a few more decades will see the issue definitely settled. The importance of a positive solution, were it to be obtained, needs no emphasis from us.

In the meantime we shall give our readers every opportunity of forming their own opinions by publishing the best obtainable contributions to the problem from all sides. In addition to accounts of contemporary researches by the most reliable authorities, and criticisms thereon, we shall include articles dealing with the light thrown

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on the subject by such other sciences as normal and abnormal Psychology, Theology and Philosophy.

It must not, however, be supposed that this problem of the Survival of Death is the only one with which Psychical Research deals. There are many phenomena—such as "Dowsing," which is described by Sir William Barrett in this number—which have nothing to do with it at all. The same may also be said of Telepathy, and even if, as the Spiritualists claim, such phenomena as those studied by Dr. Crawford of Belfast are ultimately due to the activity of discarnate agents—which is doubtful—the immediate mechanism of their production provides quite a separate field of inquiry and a very interesting one. Such phenomena will be dealt with in subsequent numbers.

The fact remains, however, that the problem of the Survival of Death and the credentials of Spiritualism are, for the majority of people, the most interesting and important questions with which Psychical Research is concerned, and, whether we like it or not, Spiritualism is a force in the modern world which cannot be ignored. It may be a Heaven-sent revelation, or a peculiarly subtle machination of the devil; it may be wholly a delusion, it may be merely immature; there may be the germs of a new conception of the Universe in it, or there may be nothing. But many thousands of people believe in it to a greater or less extent, and it is well that the great mass of educated persons who, in such matters, constitute "public opinion" should know something of its true strength, weakness and dangers, should be able to distinguish between the serious elements in it and mere silly accretions, and thus be in a position to accept, modify or reject it for the proper reasons.

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SCIENTIFIC METHOD IN PSYCHICAL RESEARCH

By F. C. S. Schiller, M.A., D.Sc.

IF man were a rational being, or if even he realised how irrational he is and endeavoured to comport himself as rationally as he could, the investigations grouped together, rather roughly, under the collective name of Psychical Research would assuredly be one of his great interests, and would appeal with irresistible force both to the scientist and to the man in the street. Even if scientists would only devote themselves to the duties plainly incumbent on them, much might be done. If, *e.g.*, the average logician were what he ought to be, namely, interested in the method of science and the attitude of mankind towards knowledge, instead of being entirely and unapproachably wrapt up in the sterilities and puerilities of formal logic, and the futilities of a metaphysic whose vision of human affairs is so far out of focus that it cannot see truth in anything short of The Whole (which may not be knowable by us, and is certainly not known), he would assuredly find no study more fascinating and enlightening than that of Psychical Research. For there is none which illustrates so well so many logical problems and pitfalls, and reveals so perfectly both the motives and the difficulties of our cognitive endeavour, and the hopes and fears which beset the birth of science. Similarly, if the ordinary psychologist had faith enough in his science to realise that it need not shrink from works and ought in the end to be practical, setting before itself as its ultimate goal nothing less than the making into something beautiful and harmonious the human soul, brutalised and thrown out of gear, quite as much as developed, by the fierce struggle for existence and its lurid past, he would gladly study its manœuvres and machinations when it approaches a subject which both attracts and repels it, and would observe how this subject is enveloped in a mass of prejudice and illusion, of social tabu and *camouflage*, that grows into an impenetrable screen to shut off from the dormant soul of man the immensities of the cosmic vistas.

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To an unprejudiced student of human nature, on the other hand, the subject is full of stimulating paradoxes and enlightening revelations. Why is it, for example, that we do not yet know what happens to us when we die? Seeing that the belief in souls and in their survival of death, and in the possibility of communicating with the departed, is one of the very earliest of human beliefs, why has it remained a mere article of faith? It may be granted, no doubt, that, like all beliefs of the religious order, it is primarily the expression of a spiritual craving, but that is no reason why it should not be capable of scientific investigation and found to be true. For the evidence alleged on its behalf, though not scientifically recorded, was always empirical and capable of being rendered experimental, and amenable to scientific testing. Why, then, has it neither been proved nor disproved in all these thousands of years?

Why, moreover, is it that no sustained attempt [1] has been made to do either, until now? It may be that the world is now ripe for a really thorough scientific ventilation of the matter; but, if it is, it will not be because man's traditional and normal attitude has changed, but essentially because the times are abnormal and unprecedented. Never before in the world's history has there been so strong a will to know scientifically; never before, alas, such an intensity and wide diffusion of the "bereavement sentiment." [2] Hence the inertia and obstruction which have hitherto frustrated psychical research may possibly be overcome, and the facts be scientifically ascertained.

That they have not been ascertained as yet was certainly not for lack of evidence. As far back as we can trace them, men have told ghost stories and circulated tales of marvels. This sort of evidence is probably as abundant as ever; its defect is not in quantity. Neither, strictly, is its quality such that it can be safely disregarded. For though it does not, of course, come up to scientific standards, it is as good as could be expected under the circumstances and in face of the slipshod and unsystematic way in which it is recorded. Its quality is quite as good as was that for many beliefs, say in "thunderbolts"

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[1] I do not count the work of the Society for Psychical Research as such an attempt, *as yet*, though it is by far the most considerable effort of the sort. For I consider that the very moderate amount of support both in men and money which it has received only accentuates the poignancy of the question.

[2] As I showed in my discussion of the answers of the Questionnaire of the American Branch of the Society for Psychical Research, this sentiment involves a will to know, though it demands a positive answer. At any rate, it is *not* content to "leave it a matter of faith." *Cf.* S.P.R. *Proc.*, Pt. 49.

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(= globular lightning), which turned out to be true enough when they were investigated scientifically. The trouble about it is that it belongs to the sort of evidence which is not convincing—*to all*. It is only convincing to *some*, namely, to those who are willing to believe, or (occasionally) who are willing to entertain the possibility of belief. As, however, there are very many whose minds do not fulfil these conditions, the evidence cannot convince, and its appeal is not universal.

As, moreover, the logicians have made the hasty assumption that all minds are constructed on the same pattern, and that whatever is true must be so "universally," this fact alone suffices to render the evidence suspect and unpalatable to logicians. They should therefore be summoned to observe that the evidence for the topics of Psychical Research is not unique in this respect. It shares this peculiarity with many other subjects. Thus the evidence for the truth of a religious creed does not appeal to all; which is why no religion is literally "catholic." A political argument is hardly ever found to convince the partisans of the opposite party. A man who has egregiously committed himself on one side of any question is rarely to be persuaded that the truth lies on the other. Any man who has become an "old fogey" (as we all do if we live long enough, though some fossilise much earlier than others) may be trusted to regard with disfavour the "new-fangled notions" which have come into vogue since he stopped learning.

In all these cases, and, indeed, probably in *all* cases of knowing to some extent, "reason" encounters "bias," and gets worsted. Now it is evident that the presence of bias enormously complicates every problem of knowing. The most obvious thing to say is to declare that bias must be extirpated at all costs. But apart from the fact that this cannot be done in practice, it leads straight to the theoretic absurdity that the best attitude for the inquiring mind is one of total indifference towards the subject of inquiry. Besides, none of those who advocate this policy really wishes to eradicate the desire to know (which must, of course, always produce a bias in favour of a *positive* result), nor would he deny, if he reflected, that its intensity is a valuable asset in the search for truth.

As, then, we cannot get rid of bias, we must guard against it. We can control it to a great extent by becoming conscious of our own bias and exposing that of others. In difficult questions, where a conflict of bias is an essential part of the problem, we may have to resign ourselves to the prospect that in all probability, whatever science can do or undertake, different minds will continue to differ. Does anyone,

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e.g., seriously suppose that there will some day be discovered an irrefragable refutation of Conservatism or of Liberalism? It would not be astonishing, therefore, if the intensity of feeling evoked by the topics of Psychical Research should render universal agreement on the matter for ever unattainable. There will probably always be some who will have good reasons to hope that there may *not* be a future life —for them. But this is no reason why we should not try to know, and to know as scientifically as we can.

The prevalence of bias in these matters has of course long been recognised. I need merely call to witness an American psychologist who was recently allowed to try a little Psychical Research by Harvard University. "With respect to the problems of psychical research," he says,[1] "practically no person exists who does not possess a strong bias, in one direction or another." His testimony is valuable because it recognises also the existence of a bias *hostile* to Psychical Research, the power of which it is essential to allow for, if one wishes to understand the history of the subject. As, moreover, one hears far more about the bias of credulity and the will to believe than about their opposites, it will be well for us to keep a watchful eye on what has proved itself to be, on the whole, the stronger bias, and to bring to light the obstacles it has put in the way of scientific Psychical Research.

It is on account of this hostile bias that the psychical inquirer has had to fight so hard for the right to research, and has still to conduct his campaign on two fronts. Not only has he to contend, like other inquirers, against the obscurity of the facts and the complexity and deceptiveness of nature; he has also to maintain his "home front," and to win permission to inquire from the society he lives in. So much so, that hitherto the latter has been his chief concern. Until a few generations ago an inquirer into the "occult" *par excellence* literally took his life in his hands, not by reason of the diabolical repugnance of any supernatural "Dweller on the Threshold," but on account of the fiendish violence of his fellow-men. Not only was the social atmosphere hostile to his enterprise, but it expressed its disapproval in the most ferocious fashion. There was nothing too monstrous and absurd to believe about him, nothing too atrocious to do to him. From the centres of "civilisation" to the wilds of Africa "witchcraft" was a statutory crime, and the burning of witches legally convicted of this capital offence was a popular entertainment. Can we wonder that

[1] L. T. Troland, *A Technique for the Experimental Study of Telepathy* (1917).

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such treatment neither improved the temper of the magician nor conduced to his scientific progress? It is astonishing rather that he hit upon so many promising ideas, and that, *e.g.*, chemistry has but recently had to acknowledge his prescience in experimenting with the transmutation of metals, and even in suspecting that lead and gold were akin.[1] But the magician had little leisure for the prolonged experimentation and calm inquiry which science nowadays requires. He had to devote most of his time and ingenuity to escaping from the attentions of the mob and the police.

Nor, be it noted, has this treatment of Psychical Research ever been officially disavowed. The old laws against witchcraft are still on the Statute Book. The beliefs and feelings that inspired them are still alive. The Roman Church, for example, still condemns investigation as "necromancy," and conceives it as communion with the devil. It would not be at all difficult in many countries to organise a "pogrom" against "mediums," and in others to get visits to them proscribed under "Dora," like the use of cocaine.

Still, on the whole, the traditional social animus against Psychical Research was slowly abating. It lingered on in the academic world, because that is everywhere organised so as to penalise novelties and adventures of thought; so if a professor was rash enough to evince any interest in a subject that was not respectable, it would promptly be whispered that he "had gone off his head."[2]

But even here the virus of social hostility had become much attenuated—thanks mainly to the eminent respectability with which the S.P.R. conducted its researches. What scholar, *e.g.*, could fail to feel the appeal of messages from the dead that were chiefly composed of recondite references to the classics? By devising the highly complex and ingenious, and in no wise popular, method of "cross-correspondences," the S.P.R. at once rendered such communications academically respectable, even as Freud rehabilitated the ancient art of dream-interpretation in the eyes of the medical profession by interpreting in terms of sex. Indeed, it is hardly too much to say that the greatest achievement in Psychical Research with which the S.P.R. is so far to be credited was just this making of the subject respectable enough for serious research. For that was the first and

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[1] Cf. Soddy, *Science and Life*, p. 132.

[2] I have myself heard this asserted about Sir William Crookes, Henry Sidgwick, and William James.

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indispensable step to discovery, which the students of the occult had never succeeded in taking before.

Then came the war, and produced first a "slump" in Psychical Research, and then a "boom." Now the rare infelicity of the times and the imperious demands of multitudinous sufferers seem to have swept away the prejudices and hesitations, the fears and insincerities of the majority. The "bereavement sentiment" is no longer felt only by a small fraction of the population; it demands social recognition, and refuses to be thwarted any longer. The present vogue of Psychical Research is not surprising to any psychologist who has taken the trouble to study the nature of human sentiment.

But the "bereavement sentiment" is transitory. It is also, scientifically speaking, selfish, in that it aims rather at personal consolation than at the increase of knowledge. It will leave the scientific question very much where it was, unless it can be well advised and wisely guided. If it is so guided it may yield what it has never before been possible to get, namely, the provision of resources for systematic Psychical Research, on a scale worthy of the magnitude, importance, and difficulty of the inquiry. The leaders of the spiritualists and of the S.P.R. therefore have a great responsibility; they *must* impress on their followers that the object to be aimed at is not personal consolation so much as scientific proof; and to that end they must untiringly explain to them that scientific proof is arduous and slow and cumulative and co-operative, and, above all, *expensive*. They should be warned explicitly that they must not expect to solve the mystery of human destiny by paying a guinea to a "medium" and being told something that impresses or staggers them.

Unfortunately the nature of scientific proof is hardly understood either by the public or even by professed logicians. The public still believes that "mathematical demonstration" is the *ne plus ultra* of cogency, though modern mathematicians are under no such illusion. They understand that it has only the hypothetical certainty of a coherent system of assumptions and the practical value of a well-chosen one. The logicians mostly allow their dreams of absolute proof to blind them to the method of science, and mislead both the scientists and the public.

It is necessary, therefore, to realise distinctly that there are three methods in Psychical Research which *cannot* lead to scientific proof, and also a fourth which may end in such proof, but cannot end in absolute certainty.

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(1) The first and most pretentious of these is metaphysical and *a priori*: it promises absolute certainty without the tedious prolixity of observation and experiment. But it cuts both ways, and can as easily be used to disprove as to prove any object of belief which it is not desired to inquire into. Thus Hume's argument against "miracles" was just as metaphysical as the *a priori* "proofs" of the soul's immortality; both begged the question in the definition of their terms. Similarly Mr. Hugh Elliott has recently based his rejection of Psychical Research on his metaphysical materialism, and declared argument and evidence useless.[1] In short, appeals to metaphysics (unless the metaphysics are conceived as hypotheses to be empirically tested) either beg a question or a definition, and argue in a circle from the meaning of words—which is supposed to be fixed. But as these meanings have grown up gradually through man's dealings with reality and change accordingly, this supposition is *false*, and the value of such verbal reasoning is no greater than that of the empirical evidence by which it was moulded. Also the plea by which an absolute sanction is claimed for metaphysical beliefs always conceals the same impossibility. It is always advanced in the form of a *threat*. "You *must* accept my metaphysical doctrine, for *no other* is rationally thinkable: if, therefore, you reject it, you destroy the rationality of the universe." To which the answer is, that even if the premisses were true (which they never are), it would only follow that *up to date* no other and better metaphysic had been excogitated; from this conclusion it would be fallacious to infer that none ever could be. Even, therefore, if there were *only one* metaphysic instead of as many as there are philosophers, it would be false that it *alone* could conceive knowledge as valid and the world as intelligible: to make such a claim, merely because one had not been able to think of a better, would involve the formal fallacy of "affirming the consequent." Metaphysics, then, are purely obstructive from a scientific point of view. They deserve a mention merely because so many suffer from metaphysics without knowing it.

(2) The idea of settling the question for good and all by a single conclusive case which would be so perfectly recorded and so skilfully arranged that all sources of error and doubt would be excluded is a far more attractive ideal. Indeed, we must all sympathise with the ambition of reaching a final and absolute fact which no scepticism can

[1] In the *Quarterly Review* for January, 1920.

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corrode and no criticism pick to pieces: it is such an incitement to carefulness of observation and ingenuity of experiment. But experience shows that crucial experiments are not to be had for the asking, and finality can hardly come before the end of knowing: so to expect to realise this ideal in so peculiar a subject as Psychical Research would be quixotic.

In the first place, it is evident that no final *disproofs* of any alleged supernormal happening is possible or even conceivable. A negative result only proves that under the precise conditions of the experiment nothing happened, and this cannot show that under *other* circumstances it might not happen or has not happened. And as the precise conditions can never be repeated, excuses can always be made to explain away the failure. A sufficiently robust will-to-believe need never logically surrender to any amount of negative evidence. In ordinary affairs, no doubt, we mostly have common sense enough to allow consistently negative results to undermine even our dearest prejudices. But with subjects of the emotional interest of Psychical Research, this will hardly occur. There will always be found stalwarts enough to cling to their scientifically discredited beliefs, and to dispute that a final decision has been reached.

Secondly, it is practically impossible to exclude all the sources of error in a single case. They become too multitudinous when nothing may be taken for granted and anything may be alleged. Fraud, malobservation, self-deception, inaccuracy, mendacity, bad faith, and (in the last resort) coincidence, may be alleged to any extent by the sceptic against all the parties to the experiment. Even if they could all be guarded against, he would blandly declare, "Well, I can't say *what* was wrong about it; but why has it happened *only once?* I want to see it done again!"

Thirdly, even if the facts could be established beyond all possibility of cavil, they would still remain ambiguous. Their significance would depend on the interpretations put upon them. And these are so various and so extreme that the value of the facts would be wholly indeterminate. In the case, *e.g.*, of messages purporting to come from the dead, the interpretations range from the devil to the Deity, *via* telepathy from the living; and all these agencies are conceived as unlimited enough to account for anything. Our theories to apprehend the facts are at present too vague to render them intelligible.

Lastly, even if we admitted that the evidence in a single case was irrefragable now, it could not long remain so. The tooth of time would

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at once begin to gnaw away its value, and as memories grew dim and witnesses died and records perished and new sources of error or doubt were discovered or devised, its cogency would quickly fade away. History is full of marvels which no one now believes, and in a few generations belief in the "irrefragable fact" would become as optional as in the other facts of history. Decidedly, then, a fact cannot get itself established once and for all, and then rest on its laurels: to maintain itself as fact it must continue to be active.

(3) Shall we, then, despair of carrying the citadel of truth by a single *coup de main*, and betake ourselves to the slow pressure of a regular siege? Shall we bombard it with a series of cases, not singly unexceptionable or cogent, but all supporting and corroborating each other, until in the end the most obstinate sceptic yields to their cumulative force? There is much to be said for this policy. Though unpretentious, it is practicable, and can be started at once and upon any evidence, and continued as long as necessary. It is true also that the evidence accumulates, and improves in quality as it is more promptly and conscientiously recorded. But will these merits suffice to disarm the sceptic? He has a fatally easy way of avoiding conviction. He has merely to refuse to let the evidence accumulate, and to insist on taking each case on its own merits separately. He can then attack it as if it stood alone, urge all its flaws against it, disregard all corroborations and analogies, and dismiss it as incredible, unintelligible, and worthless, without regard to the existence of other "facts" which are all similarly vulnerable. Hence Mr. Elliott is quite entitled (on his own assumptions) to deprecate "the mere piling up of fresh instances"; they may strengthen the case, for such as are open to conviction, but they cannot prevail against too hostile a bias.

(4) What, then, remains? The only possible procedure that can lead to scientific proof in Psychical Research, as in the empirical sciences, is to accept the guidance of Scientific Method. Now Scientific Method is essentially hypothetical, *i.e.*, experimental. It treats all "facts" as data to be tested, all "principles" as working hypotheses to be confirmed, all "truths" as claims to be verified. All allegations, therefore, must be tested, and are valued according to the scientific consequences to which they lead. At the outset, therefore, Scientific Method is content with provisional conclusions that are not greatly trusted, and to the end it is never content with decisions that cannot be revised and improved on, if occasion should arise. At the same time, it is recognised that the human mind does not respond to the infinite

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gradations of logical probability, but declares itself satisfied and certain so soon as the evidence for a belief seems to it adequate. After that the question is humanly settled—unless and until something occurs to reopen it. For there is no absolute *chose jugée* in science.

Now among the tests of a scientific belief the severest, the most convincing, and ultimately the most important, is its application to reality. The question, "Can my belief be brought to the test of fact and acted on? And when I act on it, can I trust it not to disappoint my expectations?" is the severest of all the tests of belief, because it mercilessly sweeps away all the make-believe, the half-beliefs, the self-deceptions and illusions which some minds in all subjects and all minds in some subjects so much prefer to a courageous facing of the facts. It is therefore fatal to pseudo-sciences like, *e.g.*, astrology. If a man professes to believe that the date of a man's death can be calculated from a knowledge of the date of his birth and of the conjunction of the planets at that time, he can fairly be summoned to act as if this knowledge had a very direct application to the life insurance business. If he doesn't, it may justly be inferred that his belief is, at most, a half-belief, and that his real state of mind resembles that of the Scotsman who was willing to take his dying oath to the truth of an improbable assertion, but not to bet sixpence.

The pseudo-scientific attitude, moreover, is not confined to the pseudo-sciences. In all subjects, from metaphysics to mathematics, it is possible to indulge in the spinning of hypotheses, in the stringing together of abstract *formulae* without regard to consequences, without end or purpose or consideration of whether they have any concrete meaning or any application to reality, and if so to what. Scientific Method makes short work of all this sort of thing, by insisting that inapplicable doctrines are in truth unmeaning. Hence such beliefs, and I fear it must be admitted that they are evoked not infrequently by the objects of Psychical Research, naturally fight shy of so stringent a test, and postpone or evade the dread day of application.

On the other hand, such of them as *do* apply are thereby purged of error, and confirmed in their claim to truth. One of the most impressive documents I have ever come across in Psychical Research was a form of contract stating the terms upon which a firm of well-sinkers who employed a "dowser" were prepared to find water in a supernormal manner. For it showed such a calm confidence in the reality of "dowsing," that one could not but reflect that business people would

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not accept the principle, "No water, no pay!" unless they were actually able to find water thus.

The test of application then is most convincing, because it is psychologically impossible to maintain an attitude of theoretic distrust towards ideas and beliefs which are found to work in practice. The electrician cannot doubt the reality of electricity as he turns his "current" on and off, nor the biologist that of life, as he watches its growth and decay, even though neither the one nor the other knows what "electricity" and "life" really are. Whether we like it or not, we have to recognise that the ultimates of science are known to us only in their operations and not *per se*. Most of us, however, fortunately find it quite easy to adjust ourselves to this situation: when we can predict and control whatever are reputed the ultimate agencies of our time, we feel that we know them so far as we need.

Now this same scientific temper could be, and should be, transferred to the subjects of Psychical Research. For it is clear that they have manifold applications to reality by which they can be tested, and that success in application would speedily raise them above all possibility of cavil. For example, "telepathy" would cease to be doubtful as a force in nature if it could be controlled like "electricity," and if the telepathic transmission of information could effectively compete with the telegraphic or wireless. More than fifteen years ago I pointed out, in the first number of the *Occult Review*, that this was the one effective way of establishing the reality of telepathy. I must, however, regretfully admit that in this direction no progress has been made: we know as little as ever about the conditions requisite to put a mind into a state in which it can receive or transmit "telepathic" impressions. This would be highly discouraging if it were clear that there had been any serious and prolonged research: but apparently nothing of the sort has been attempted.

Nevertheless, it is no wonder that under the circumstances the *pragmatic* argument from the "*working*" to the *truth* of beliefs, which has been set forth above, has been turned against the belief in anything supernormal. Mr. Hugh Elliott [1] roundly declares that telepathy "for practical purposes of business is plainly non-existent, and yet immense fortunes would be amassed by anyone who could use it for a practical end. Consider how different the course of the war would have been if we could have tapped off by a telepathic method the minds of the German generals." He also points out that "huge

[1] *Loc. cit.* p. 87.

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financial interests are at stake," and that in practice telepathy is not found to be a "satisfactory substitute for the letter post." All of which is true enough, though Mr. Elliott is mistaken in supposing that no one had anticipated him in pointing out these uses of telepathy. He is mistaken also in supposing that this settles the question. For hitherto no sustained attempt has been made to develop the applications of Psychical Research, for the reason that there has been a fatal lack of co-operation between the scientific researcher and the general public. The scientific researcher, having had his proper motive wrongly represented to him as "pure love of knowledge for its own sake," has felt himself free to follow the promptings of his own curiosity, and resented social attempts to direct him towards "utilitarian" or "popular" subjects. So he naturally overlooked the logical value of the application test, and the need of something more than random investigation. The general public, on the other hand, though it was conscious of the ends it aimed at, and of the uses of the supernormal knowledge it desired, had no idea of the first steps to be taken, of the patience that was needed, or of the magnitude and difficulty of the inquiry.

The result was an *impasse*, something like that which blocked the advance of Physical Science throughout the Middle Ages. Hence the analogy of scientific history would seem to demand another Bacon, whose trumpet-call may summon mankind to the assault on a new realm of knowledge, as great or greater than the physical. It may well be that the present crisis in human affairs will form an adequate stimulus and arouse men to do away with the anomaly that they either cannot or will not investigate the very problems that concern them most. If so, Psychical Research, here or in America, will be adequately equipped and put upon a permanent footing. For as I have endeavoured to point out,[1] there are now "millions who have been cruelly and abnormally bereaved and deprived of those in whom their hopes were centred," while there is also "keen dissatisfaction with the evasive platitudes of conventional creeds, by which all societies have from time immemorial cheated the longing of the freshly-wounded human heart not to be totally severed from those it loved," and while "nevertheless the critical spirit is strong enough in many not to rest content with consoling deceptions."

If, in consequence of this unparalleled condition of the world, an organisation for research like the S.P.R. can be properly endowed and

[1] *Proc.* S.P.R., Pt. LXXVI., p. 270.

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enabled to enlist an adequate number of trained professional workers, they may any day have the luck or ingenuity to hit upon a clue that will give them control of some essential phenomenon, and thereafter will make rapid progress, because they will be able to experiment at pleasure. It would not, however, be surprising, and should not be discouraging, if the first clues led nowhere and the first analogies proved false. It should never be forgotten that the efforts of physicists to find a clue to physical happenings proved abortive for thousands of years, and that the Mechanical Theory which finally led to success in the hands of Descartes, Galileo, and Newton had been declared illusory by Plato and Aristotle.

The truth is that the making of a science is a much more protracted, arduous, and precarious business than we are willing to admit. The road to success is always paved with the serviceable fragments of multitudes of erroneous theories that have perished in the attempt. And in this case all the inherent difficulties of the enterprise are multiplied tenfold by the pitfalls and obstructions inserted by the interferences of bias on both sides. It will long be necessary to verify most carefully every assertion on either side and to presume that every bit of evidence has been polarised by prejudice until the contrary is shown. It follows that under such conditions no test can be made really convincing except the most exacting of all, the pragmatic test: the world at large will not really and truly believe that mind can communicate with mind directly, or that the departed are not wholly dead, until the *routine* of ordinary life includes the sending and receiving of telepathic messages, and of communications from (and to) the "dead," which are so common and so well authenticated by their consonance with their earthly personality as to leave no practical doubt that they are what they claim to be, and *not* the work of self-deception, subliminal memories, devils or cosmic Absolutes. Or, in other words, until the ultra-physical world has been rendered continuous with the world we live in, and this world and the "next" practically interpenetrate.

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THE SO-CALLED DIVINING (OR DOWSING) ROD

By Sir W. F. Barrett, F.R.S.

IN the Library of the British Museum and other places there is a valuable old Latin folio, entitled *De Re Metallica*, written by G. Agricola, and published in Basle about 1546. This is one of the earliest works on mining ever published, and is a well-known and classical treatise. In that volume is to be found the first authentic description of the use of the forked dowsing-rod (or *virgula-furcata*, as Agricola calls it) in the search for underground ore. There is an interesting full-page plate of the dowser at work, which is here reproduced on a reduced scale,[1] and in the text Agricola points out the difference between the use of the *virgula-furcata* and the ancient superstition of the *virgula-divina*, by which name the forked twig was also called. Evidently Agricola has some faith in the former, and rightly ridicules the latter.

The first account that I can find of the use of the *virgula* in England is in one of the essays of that famous man the Hon. Robert Boyle, published in 1663. Boyle was one of the founders of the Royal Society of London and the father of experimental science. It is significant to find that what we have been accustomed to regard as pure humbug, a relic of a superstitious age, is first brought to our notice, with some evidence in its favour, by two distinguished scientific men of their day. Boyle's description is worth reading; a summary of the essential part is as follows:—

"A forked hazel twig is held by its horns, one in each hand, the holder walking with it over places where mineral lodes may be suspected, and it is said that the fork by dipping down will discover the place where the ore is to be found. Many eminent authors, amongst others our distinguished countryman Gabriel Plat, ascribe much to

[1] Like other old woodcuts, the successive operations are all shown in one plate. The dowser is seen cutting his rod, and at A he is marching over the hills in a businesslike way; at B the rod has "struck," later on the ore is dug, and the proprietors are pointing out the result with evident satisfaction.

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this detecting wand, and others, far from credulous or ignorant, have, as eye-witnesses, spoken of its value. When visiting the lead mines of Somersetshire I saw its use, and one gentleman who employed it declared that it moved without his will, and I saw it bend so strongly as to break in his hand. It will only succeed in some men's hands, and



those who have seen it may much more readily believe than those who have not." [1]

From this it would appear that prospecting for ore by means of the forked hazel twig must have been in use in England for some time

[1] The Philosophical Works of the Hon. Robert Boyle, Vol. I., p. 172. 1663.

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before Boyle wrote his essays, and we know from Agricola that it had been in use in the mines of Saxony upwards of a hundred years earlier. Probably the custom was brought over to England by the German miners, who, as we learn from the State papers of that time, came to Cornwall in Queen Elizabeth's reign. The colloquial German name for the forked rod was *schlag-ruthe*, or striking-rod, and this term translated into the middle English then spoken gives us *duschan-rod*, whence Locke's "deusing-rod" [1] and thus our modern "dowsing-rod."

A century later (1750) the rod was used in England for finding underground water, being first employed for this purpose in Somersetshire, where underground water is in many places very difficult to locate; and at the present day the rod is most widely used in Somersetshire, where dowsers are most highly esteemed.

The question now arises—What evidence is there on behalf of the dowser that will bear the test of strict scientific scrutiny? The literature on the subject of the dowsing-rod is voluminous, but, unfortunately, of little or no value either from a scientific or historical point of view. It is true that in 1853 the French Academy of Sciences appointed three eminent savants—MM. Chevreul, Boussingault and Babinet—to draw up a report on the subject. M. Chevreul [2] was requested by his colleagues to draft the report; he did so, and it was republished in the form of a short treatise sixty years ago. But this report confines itself to the cause of the curious and sudden twisting of the rod which occurs when the dowser is near the object of his search. Chevreul shows that this is not a bit of stage-play by the dowser, for it cannot be imitated by a conscious and voluntary effort, but arises from a sudden involuntary action of the muscles, and is analogous to the motion of the so-called *pendule explorateur*.

This latter is merely a ring or little ball suspended by a thread, twelve or eighteen inches long, the thread being held between the finger and thumb; or the elbow may be rested on the table and the thread passed over the ball of the thumb. With most persons—not, however, with all—the ring presently begins to oscillate in spite of all attempts to keep it still, and its oscillations appear to be endowed with a singular intelligence, for numerous books by learned authors have been written, both on the Continent and in England, about the wonders of the little

[1] *See* Essay by the philosopher Locke on "Rate of Interest," p. 40. 1691.

[2] Chevreul, as is well known, was the distinguished French chemist, chiefly famous for his scientific papers on colour, and the artistic and industrial applications of chemistry. He died in 1889 at the age of 103 years, retaining his faculties and scientific activity almost to the last.

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pendule. Even the *Philosophical Transactions of the Royal Society of London* for 1734 (vol. viii., p. 404) contains a paper on the mysterious movements of the *pendule*. This paper was the last written by Stephen Grey, the discoverer of electric conduction and of other fundamental electrical phenomena, and the most fantastic and absurd conclusions were drawn by Grey as to the cause and the meaning of these movements. Here I may remark that the history of the *pendule* would form an interesting paper, for its use can be traced back to a remote antiquity ; it was, in fact, occasionally employed by the Roman augurs. One of the later Roman emperors consulted the augur as to the name of his successor. The augur, we are told, after certain ceremonies, held an iron ring depending from a thread ; the alphabet was arranged around him. Presently the ring began to oscillate, first towards one letter, then to another ; thus a name was spelt out, and as it was that of a well-known man the emperor had this unfortunate, and doubtless harmless, individual promptly arrested and executed.

It is the involuntary and unconscious movement of the muscles that causes the ring to oscillate and the dowsing-rod to twist, for neither will move if held by an inanimate and rigid support. Our conscious personality reveals itself through various *voluntary* muscular movements, ideas expressing themselves in speech or gesture. The large unconscious background of our personality reveals itself through *involuntary* muscular movements, to which ordinarily we give no heed. These involuntary movements may be due to reflex actions, as is in the beating of the heart, etc. ; or may be the result of habit, as in walking ; or the result of an emotional disturbance, as in pallor, blushing, etc. ; or they may be due to some unconscious self-suggestion, as the movement of the *pendule* and many of the phenomena of what is called " automatic writing."

Hence the sudden twisting of the dowsing-rod, which is so startling to the holder of the rod, is not caused by any *external* force, as all dowsers believe it to be, but by some cause within the dowser himself. Just as a mental shock may cause palpitation of the heart, so some sudden mental impression or nervous disturbance—even an imperceptible and unconscious disturbance—may cause an involuntary muscular spasm that will twist the rod, and twist it often with such force as to tear off one side of the forked twig. No wonder the amateur dowser, whether he be a learned church dignitary like Dean Ovenden, or a distinguished writer like Mr. A. Lang, or eminent peers like the late Duke of Argyll or the present Lord Farrar, or a geologist like

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Mr. Enys, or a chairman of quarter sessions like Sir Richard Harington, Bart., all declare the rod appears to *be alive*, and that they cannot control its sudden and amazing gyration. The rod twists, as that eminent French savant, Professor P. Janet, remarks, "*sans le vouloir et sans le savoir*," on the part of the dowser. (See note at end of paper.)

What, then, is the connection between underground water or metallic ore and this curious idiosyncrasy of certain persons? Is it due to some electrical, thermal, or other physical force exerted on the dowser by the object of his search? This is highly improbable, as I find by actual trial that dowsers are not peculiarly sensitive to these forces, or to any radio-activity that may arise from underground water or metallic ores, although they usually believe that some electrical influence is exerted which causes a sudden muscular spasm and so twists the forked rod, and adduce as proof the fact that the rod will not move if they are insulated from the ground. But electricity has nothing to do with it, for if the dowser *thinks* he is insulated, whilst really he is not so, the rod is still motionless, and it will freely move when he thinks he is uninsulated, though really not so. Moreover, dowsers have been employed with more or less success for tracing other things, such as buried waterpipes, and at one time they were used for finding buried treasure!

What, then, is the source of the nervous stimulus that excites the involuntary muscular action of the dowser? The answer to this question is a complex one. In some cases it is no doubt derived from a more or less unconscious discernment of surface signs of underground water, in other cases it is derived from some dormant idea or subconscious suggestion in the dowser's mind, the exciting cause having nothing to do with the object of the dowser's search. Hence entirely fallacious conclusions may be, and often are, drawn from the sudden twisting of the forked twig. To infer that the motion of the rod is *necessarily* due to underground water or metallic ore is therefore contrary to fact. Nevertheless, in the hands of an experienced and good dowser the indications given by the rod, though not infallible, are in many cases so extraordinarily correct and beyond the skill of any geological expert, that the cause cannot be attributed to chance coincidence, or to some subconscious suggestion, or to the detection of surface indications of underground water.

In such cases the explanation will, I believe, be found to be that the dowser possesses a *supernormal perceptive faculty*, analogous, it may

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be, to the curious and inexplicable faculties (such as "homing") which we find in many birds and animals, and our ignorance of which we cloak by calling them "instinct." This obscure perceptive power, or instinctive detection of the hidden object of his search, may not excite any consciousness of the fact on the part of the dowser, but it may be adequate to produce a nervous stimulus which will start the involuntary muscular action that twists the forked rod, held by the dowser in somewhat unstable equilibrium.

As every student of physics knows, there are many physical phenomena which render such an hypothesis by no means improbable. A nugget of gold concealed in its rock matrix, a piece of metal enveloped within the trunk of a tree, a coin swallowed by a child, cannot be detected by any of our senses, but in each case the object is at once perceived if, instead of trusting to our visual perception of luminous rays, we trust to the impression made on a photographic plate or fluorescent screen by the shorter X-waves. Many objects quite opaque to our vision are quite transparent to ether waves, considerably longer or considerably shorter than the luminous waves. Hence, with a suitable detector of those longer or shorter waves, objects which may be completely hidden from our vision can be easily perceived if the object be more or less opaque to these waves. In the working hypothesis I have sketched the dowser is the analogue of the detector of these longer or shorter ether waves, and the subconscious nervous and muscular disturbance produced on the dowser by the hidden object of his search is the analogue of the molecular disturbance produced in the electric-coherer or fluorescent screen or photographic plate.

Certainly a large and new field of psycho-physical research is opened up if it can be proved that certain human beings *do* possess an obscure and transcendental perceptive faculty of this kind.

Here I will cite two or three cases which have been critically examined by competent scientific men that appear inexplicable except by some such hypothesis as the foregoing.

The first case I will cite is a very remarkable one, and might be regarded almost as an *experimentum crucis*. It reached me through the kindness of Mr. G. H. Kinahan, at that time senior geologist in the Geological Survey of Ireland and a well-known and able field geologist. In 1887 the proprietors of a large bacon factory at Waterford, Messrs. Richardson and Co., needed a larger water supply than they possessed; accordingly they had a well 62 feet deep sunk at the most promising spot, but no water was found. They then obtained professional advice

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and, based on geological considerations, determined to have a boring made at another spot. This was carried out by a Glasgow firm, and a bore-hole 292 feet deep was sunk, and, as only a trifling quantity of water was obtained, the bore-hole was widened ; but it was no use, the yield of water was so insignificant that the bore-hole was abandoned. The next year, acting upon other skilled advice, they had a bore-hole, seven inches diameter, sunk at the bottom of the 62-feet well. The work was undertaken by the Diamond-drill Rock-boring Company. With difficulty 612 feet were bored through a very hard silurian rock, but no water was obtained. The boring was, however, continued 338 feet deeper, or a total of 950 feet, which—added to the depth of the well —made 1,012 feet from the surface. The result was a complete failure, and this bore-hole, which cost nearly £1,000, was abandoned. Then, acting upon Mr. Kinahan's advice, another spot was selected, and a bore-hole 52 feet deep was made. The strata encountered were, however, identically the same, and Mr. Kinahan advised the firm to go no further, as the quest was hopeless.

These four failures cost the firm considerably over £1,300, and they were considering the advisability of moving their factory elsewhere when one of the partners urged them to try John Mullins, an English dowser, who had been wonderfully successful. Mullins was sent for ; he lived on the border of Somersetshire. He came over and was told nothing of what had been done. He walked over the premises, about 700 by 300 feet in area, asked no questions, but traversed the ground silently holding his dowsing-rod. Suddenly, at one spot, only a few yards from the deep-bore hole, the forked twig twisted so violently that it broke in his hands. Here Mullins declared there was an abundant supply of water, which he estimated would be found at 80 or 90 feet below the surface. At two or three other places the rod also twisted as he walked in and out of the curing-sheds ; these spots were subsequently found to lie in one straight line, passing only a few yards to one side of the other bore-holes. Mullins returned to England that night, and a letter was written to Mr. Kinahan stating the foregoing facts. Boring was begun at the spot indicated by Mullins, where the rod broke. It was considered a waste of money, and a local geologist was asked to report progress to Mr. Kinahan. His letters, written at the time, I have seen, and the result reads like a fairy tale. At a depth of less than 90 feet water suddenly rushed up the bore-hole, pumping was begun, and so great was the yield that the bore-hole was enlarged to a well, and from that time (1889) to the present an

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unfailing supply of excellent water, of from 3,000 to 5,000 gallons an hour, has been obtained from the dowser's well.

Mr. Kilroe, of H.M. Geological Survey, has kindly investigated the whole matter for me, and his report shows that Mullins must have struck a line of fault or narrow fissure in the hard ordovician rock, for the water-bearing points he fixed on all lie in a straight line. Through this fissure the water, no doubt, streamed from the adjacent high ground, but there were no surface indications of this fissure, as the rock was covered by 40 feet of boulder clay. If it be urged that it was merely a chance coincidence or lucky hit on the dowser's part, the doctrine of probabilities, after the previous unsuccessful trials, would place the chances against success by the dowser as almost infinite. But this case does not stand alone.

The late Sir Henry Harben gave me the particulars of another remarkable success by the same dowser, the late John Mullins. Sir Henry had built a mansion, water towers, lakes for fountains, etc., on his fine estate near Horsham, in Sussex. He then had a big well 90 feet deep sunk, hoping to get water, but the well was dry. Acting upon expert advice, he next had a well, 55 feet deep, sunk in another place, with no result. As he was one of the directors of the New River Company he was able to call in the highest scientific advice. This he did, and he was now advised to sink a third well at another spot; this was done, and a huge well, 100 feet deep, was sunk in the Horsham clay; alas, little or no water was found. The experts then advised him to run adits in different directions at the bottom of this big well. This he did at the cost of £1,000, but the result was a complete failure. Finally, in despair, he reluctantly sent for old Mullins. Sir Henry met the dowser at the station, drove him to his place, and gave him no information. Mullins perambulated the estate holding his forked twig, and, after searching for some time in vain, at last the dowsing-rod turned violently, and he asserted an abundant supply of water would be obtained at that spot at a depth of under 20 feet; another spot was found close by, and both were on a small elevation. Two wells were dug at these spots, through a hard sandstone rock, and an immense perennial supply of excellent water was found at about 15 feet deep. It is true shallow wells are generally objectionable, but this happens to be an excellent potable water.

This sandstone cap over the Horsham clay was unsuspected, as it was covered with surface soil and grass. The explanation of the

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dowser's success might possibly have been attributed to a sharp eye for the ground, had it not been for the fact that the dowser was no geologist, was a stranger to the locality, and the spot had been passed over by the experts previously engaged.

The last case I will cite occurred in County Wicklow, about five miles from Bray. I was anxious to put the dowser to a severe test by asking him to locate places where water would be found and where it would *not* be found. A site was selected in a field on the slope of Carrigoona Mountain, opposite the Great Sugar Loaf Mountain, where the most shrewd observer could not possibly predict beforehand the presence or absence of underground water at any particular spot. The rock is sandstone and quartzite, and water-springs only occur in a few places. I sent for a good English dowser, Mr. W. Stone, who came over specially from Lincolnshire, where he lived. The field was covered with grass, and the bed rock was believed to be only a few feet below the surface. The dowser marched to and fro, and fixed on two spots where he said plenty of water would be found within 20 feet from the surface, and another adjacent spot where he said no water would be found.

Then I took him to another field on the other side of the mountain ; here he declared no water would be found anywhere, the forked twig refusing to move in his hands. A second dowser, a successful amateur, was tried a few weeks later ; he knew nothing of the previous dowser's visit. His indications exactly coincided with those of the first dowser. Boring apparatus was obtained and a set of bore-holes were made, first in one field, then in the other. The bed rock was deeper than we thought, and after boring through 16 feet of hard, dry boulder clay, at the spot where the dowser said water *would* be found, a splendid spring of water was encountered. At the spot, a few yards distant, where the dowser said there was no water, we bored down to the solid rock, and spent a week boring into the rock, but no water was found. At the third place, where he predicted water, we found on boring a splendid supply at 18 feet below the surface. In the other field on the opposite side of the mountain, where the dowser declared no water would be found, we bored in several places down to the solid rock, spending a whole month over it, but not a drop of water was to be found anywhere.

It was in consequence of the unexpected and plentiful supply of water discovered by the dowser in the first field that I secured the land for the purpose of a country cottage, which I subsequently built and

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called "Carrigoona." Even in times of great drought, when most springs have run dry, my well has never failed.

These cases are only illustrations, though striking ones, of upwards of one hundred other cases I have investigated of the dowser's success when other means had failed. It may be said "failures are forgotten and successes only remembered." This may be the case with amateur dowsers, but with paid dowsers the tendency is the other way, as public opinion (outside Somersetshire) is against rather than in favour of the dowser. No doubt there are rogues who pretend to be dowsers, and who hopelessly fail when underground water is difficult to locate; and no doubt also, for a large water supply to a town, it would be far better to seek skilled geological advice than trust even to the best dowser. Unfortunately there are no dowsers now living so wonderfully successful as the late John Mullins or the charity boy Bleton in France a century ago.

The upshot of the whole matter is (1) that those who really possess this curious faculty are rare, though pretenders are abundant, the good dowser is a case of *nascitur non fit*; (2) the involuntary motion of the forked twig, which occurs with certain persons, is a muscular spasm that may be excited in different ways; (3) the explanation of the success of good dowsers, after prolonged and crucial tests, is—like that of any other obscure human faculty or instinct—a matter for further physiological and psychological research, though provisionally we may entertain the working hypothesis I have previously suggested.

That there does exist in certain persons this faculty of a transcendental perceptive power—clairvoyance, as it is commonly called, *telæsthesia*, as it was termed by Mr. F. W. H. Myers, or *telegnosis*, as Dr. Heysinger of Philadelphia suggests it should be called—appears to me unquestionable. It is entirely subconscious on the part of the dowser, and in deep hypnosis a lucid or clairvoyant state sometimes supervenes which is closely allied to the dowser's faculty of seeing things afar, or seeing without eyes. One of the most remarkable cases of clairvoyance is recorded in a little book I possess giving the well-attested evidence of the transcendental faculty of a Presbyterian minister, the Rev. C. B. Sanders, of Alabama, U.S.A. Some of this evidence and many other striking cases of clairvoyance will be found in the second volume of Myers' great work on Human Personality, and also in various critical papers published in the Proceedings of the S.P.R. The cases related of Swedenborg and investigated by the

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philosopher Kant are well known. Notwithstanding the many papers and pamphlets that have reached me attributing dowsing to some physical cause, my conclusion, that it is a psychical, not physical property, remains unshaken. I have, moreover, been able to obtain experimental corroboration of this view. I sent to Mr. J. F. Young, an amateur dowser, three carefully-sealed envelopes, each containing a card on which I had written a word of three letters. I asked him to try if by automatic writing he could discover what the words were. With one envelope he could get nothing, but with the other two he was fairly successful. That is to say, in each case he got two letters completely right and made an attempt which closely resembled the third.

As regards the cause of the motion of the rod—often beyond the control of, and even opposed to, the dowser's muscular effort—I have an open mind. That it is in most cases due to the dowser's unconscious muscular action I believe, but in certain cases this explanation seems almost incredible. There may be some intelligent force, external to the dowser, which violently moves and often breaks the rod, and if so it would appear to be analogous to the intelligent force which operates in producing the physical phenomena of spiritualism, and which, in the case of a clerical friend of mine, flung the table at which they were sitting for table-turning across the room and then smashed it to pieces, no person present having any part in the amazing phenomena that took place.

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FURTHER EVIDENCE OF SUPERNORMAL AND POSSIBLY DISCARNATE AGENCY

By J. Arthur Hill

IN two of my books I have described and discussed the clairvoyant phenomena of Mr. Aaron Wilkinson. These phenomena have been studied by myself and friends over a period of many years, and they have led or driven us, sceptical and hostile though we were at first, to a belief in the agency of human beings no longer in the flesh. We began, as all sceptics rightly do, by supposing that the medium somehow possessed—accidentally or as a result of inquiry—an unexpected amount of information concerning our affairs; but this supposition soon began to appear inadequate, and it was finally abandoned as an explanation when the medium correctly described and named many deceased relatives of friends of ours introduced anonymously—people from distant towns, and not spiritualists or connected with psychical research. Moreover, many intimate and characteristic touches occurred in messages—references to things which it is hardly possible to believe that the medium could have learnt about, even by diligent inquiry; as when the Stonor spirits apparently came to express gratitude for help given them, and incidentally to provide evidence of the kind required.[1]

An accumulation of this kind of thing having driven us beyond "normal" hypotheses, we fell back on telepathy. We supposed that the knowledge shown was perhaps reflected from our own minds. But we had to admit that the supposition was a doubtful one, for already in some cases the identifying details about spirits said to be present went beyond the conscious knowledge of the sitters and had to be verified later. We then made wild clutches at "telepathy from our subliminals," assuming that those subliminals possessed the necessary knowledge which our normal consciousness did not. But in making this despairing effort to save ourselves from spiritistic interpretations it

[1] *New Evidences in Psychical Research* (Rider, London), pp. 58-9.

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was painfully obvious that in thus adding assumption to assumption we were clutching at straws supported only by other straws, and we felt little confidence in our hypotheses. We could never discover any parallelism between our own thoughts and what was being said by the medium. Often we found that the beginnings of a description would make us think of a certain man we had known, and on the telepathic hypothesis one would expect the medium's utterances to follow up the thread; but instead of that the description would continue on its own lines and a name would be given, the whole thing turning out to be correctly applicable to some deceased person of whom we had *not* been thinking.[1]

And, in a few cases, things happened which excluded both the normally-acquired-knowledge and the telepathy-from-the-sitter theory. Spirit-people quite unknown to me were described and named, and I found on inquiry that they were relatives of the last visitor I had had, several days before the sitting. I am sure that the medium did not know who my last visitor had been, and in each case it was a person whom I am satisfied he does not know or know of—not a spiritualist or psychical researcher, and not a local resident.

So, as a result of careful study of an accumulation of data, we were forced to the conclusion that a spiritistic explanation was the only reasonable and logical one. There was no satisfactory alternative if we faced the facts honestly. Having been good Hæckelians or Huxleyans, this outcome of our investigations was contemplated with a certain humorous dismay. We consoled ourselves as best we could with the reflection that we had religiously followed the *method* of our masters—observation, experiment, and inference—and that they would probably have come to our conclusions if they had had our experience.

In the two volumes just referred to, the reports of sittings are given *in extenso* and in one of them verbatim. This causes a little difficulty in following the threads, for the medium often describes a number of spirits, harking back to No. 1 after dealing with No. 2 or No. 3, as if things come better when attention is removed, somewhat as we remember a name best by not trying. In order to avoid this disjointedness, I propose in this article, which is concerned with reports not hitherto published, to quote the evidence relative to this or that spirit, taking the evidence, it may be, from different parts of the same

[1] *Psychical Investigations* (Cassell & Co., Ltd.), pp. 43-7, 66, 90, 97-8.

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sitting, or from many sittings—for it often happens that a spirit turns up time after time, apparently aware of not having succeeded in getting the desired matter through, and continuing until success is achieved. But though I thus select, I shall quote always the exact words of the medium from the contemporary verbatim notes, and shall include anything said by the sitter if it gave information away or has any bearing on the evidential problem. Readers of *Psychical Investigations* will perhaps be able to credit me with exact reporting and the required wariness as to any information-giving remarks.

The medium is a "normal clairvoyant." That is, he possesses a sixth sense, or whatever we like to call it, by which he can occasionally see "spirit forms," usually lifelike and normally dressed. He cannot do this entirely at will, and consequently declines to give regular sittings to any applicant, no matter what inducement is offered, though he sometimes breaks his rule if impressed to do so, usually for people who are bereaved and in great grief. He kindly comes to us occasionally, on the understanding that we take our chance. Sometimes he goes into trance, particularly (and often unexpectedly to himself) when his normal clairvoyance and clairaudience have failed to get all that some spirit desires to get through, the control-spirit coming to explain and straighten things out. But generally his normal powers furnish evidence as good as the trance does, with the advantage of greater conciseness, for the trance-control usually converses in a non-evidential way, between the bits of evidential matter. This control-spirit who "takes possession" of the medium in trance purports generally to be a Scotchwoman, but she gives us no name or evidence of identity, and it remains an open question as to whether she is really a spirit or a secondary personality of the medium. The Scotch is broad and life-like, and I am sure that Mr. Wilkinson in his normal state could not produce it, but of course a secondary personality often has powers which the primary consciousness has not, so the excellence of the Scotch speech proves nothing. The control is exceptionally complete, and the medium will often walk about while entranced, with eyes open, the control talking all the time and commenting on the books, pictures, furniture, etc. Curiously, she always takes his glasses off, saying that she can see better without them. Normally the medium is almost blind without their aid; and in his normal clairvoyance he probably does not see the forms with his physical eyes but by some inner sight, somewhat as he gets names by an inner hearing.

Now to details.

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At a sitting on March 8th, 1917, the medium said, among other things: "Have you known somebody called Timothy? An oldish man, bent with age. I can see a lot of little pictures. This man is holding some little pictures in his hand—small, tiny photographs."

The name Timothy did not at once recall anyone to my mind, but the photographs did. Our village photographer, who died about ten years ago, leaving no successor in the business, was named Timothy Robinson. He was about seventy-five years old, and for many years walked with a marked stoop. It was a rather curious fact that during the few weeks before this sitting I had been doing a good deal of amateur photography—indoors, consequently it was not known to all and sundry—and it would seem that the old photographer still has an interest in his former mundane occupation and had been attracted to me in consequence. It was his first appearance at my sittings, and my photographic experiments were the first for over twenty years. Robinson and I knew each other well, though I saw him infrequently. He took photographs of me and most of our family at various times. And, as regards the smallness of the photographs clairvoyantly seen, it is perhaps worth noting that Robinson had mostly a working-class clientele, and his photographs were for the most part "carte-de-visite" size, his activities being before the days of photograph post-cards.

It may be urged, by those who are disinclined to adopt the spiritistic hypothesis, that such incidents as these may be due to a reading of my mind. This is a reasonable suggestion, as a guess, and if mind-reading turns out to be a fact; for the information given was certainly possessed by me, though it was not to the fore, for I had not been thinking of Robinson, and I should say that he had not been in my conscious thoughts for many months, perhaps years. And, as already said, I never detect any parallelism between the medium's clairvoyance and my own thoughts, so I have gradually come to doubt the mind-reading which some armchair critics so easily assume. Moreover, their assumption, to be of much use, must cover mind-reading of the subliminal mental levels—things I am not thinking of and some of which indeed I have forgotten, as in other incidents—and this is obviously a step further into guess-work. Still, to be on the safe side it is allowable to postulate mind-reading as a possible explanation of things known to the sitter. I did so myself, at first. But apparently those on the other side perceived my difficulty and proceeded to give me evidence which eliminated this telepathy-from-the-sitter idea. Some of this occurred before the publication of my *Psychical Investigations*, and is therein

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described. Other incidents of the same kind have occurred since. The following is one of them.

On March 8th, 1917, the medium said: "There is a gentleman with you, old, tall, straight, not big-bodied, whiskers white, tapering at the chin, straight nose, colour in his face, good clear skin, hair fairly good, not bald, quite thick, stands behind you; a quiet, unassuming man, staid, very thoughtful, well-dressed, kind of little narrow tie, low collar, white front. Rather devout man, rather religious."

This was addressed, not to me, but to a lady friend of ours from another town, whom I had introduced anonymously in the hope of getting something evidential regarding her son, who had been killed. She did not recognise the old gentleman, nor did I. (Her deceased relatives were not known to us.) It did not occur to me at the moment that the spirit might be an acquaintance of mine, though at the same sitting spirit forms which were certainly for us were described as standing by our friend—people she had not known. The reason for this is not understood, unless it is that spirits find it easier to show themselves near some people than near others, the former perhaps having some mediumistic power. Mr. Wilkinson said—it may here be noted—that our friend possessed psychic power of "physical" kind, and so may have helped the spirits to take on quasi-physical conditions. Or it may be that the direction of the medium's attention to this sitter in particular (for when I introduce a stranger he knows that I hope something evidential will occur for the new sitter's benefit) resulted in a mis-locating of the forms, somewhat in the same way as we often mis-hear or mis-see in consequence of expectant attention, thinking we see or hear a friend whom we are expecting, when really it is someone else. Whatever the reason, this mis-locating often happens; and, as in the case just quoted, it results often in non-recognition unless or until a name or something very distinctive is obtained.

However, as happens fairly often, some intelligence evidently perceived that things were not going well and that tactics must be changed, for the medium went off rather unexpectedly into trance. His control—in this case a Yorkshireman who gives his name as John Brotherton and has given identifying detail about himself—proceeded to inform us that a spirit named Caleb was present and that he had been a Methodist. The words, "A charge to keep I have," were also said, apparently in connection with this spirit. They were unfamiliar to me, but suggested a line of a hymn. The name Caleb immediately reminded me that the description of the old gentleman would apply very

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well to a much-respected retired schoolmaster, Mr. Caleb Tapp, who had lived in a house belonging to me and had died there about three months before the sitting. He was a Wesleyan Methodist, and sometimes took duty as local preacher. I had never mentioned him to Mr. Wilkinson and I have no reason to believe that the latter had ever heard of him.

I made inquiries of Mr. Tapp's intimate friends, and was informed that a hymn beginning "A charge to keep I have" was one of his favourite hymns, and a member of his chapel "class" said it was his first favourite, judging by the frequency with which he selected it as class leader. This fact would be known to very few. I certainly do not believe that anything about his favourite hymns was ever known to me. I am not a Wesleyan, had not been to that chapel for twenty years, and—being invalided—I had had no conversation with Mr. Tapp for many years. I was not in close touch with any of his friends, and had never talked with them about hymns.

In accordance with custom, I said nothing about Mr. Tapp at the sitting of March 8th, except that I thought I knew who "Caleb" might be. I mentioned no surname or anything about him.

On May 18th, 1917, the medium had an impression of the presence of a Caleb, and asked, in response to my remark that I thought I understood: "Was he a preacher?" I said, "Yes, a local preacher." The medium then got the further impression that the gentleman was not related to me, which was true. To clinch the matter, the surname was required, and this came in curious fashion at a sitting on June 21st, 1917. The medium had gone into trance, and his Scotchwoman control was speaking. After giving evidential matter concerning other spirits said to be present, she remarked: "There is some old man here keeps tapping on the table. He says, 'Tap, tap, tap,' with his index finger on the table. Old style in his way of thinking. A good man, old style. A God-fearing man, you understand?" (J. A. H. "Yes.") "But he has now found out more than he ever believed. He has not been long gone. His eyes are opened wider than ever before. He was fond of children and much among them. He was a man that knew lots of people. Again he taps on the table, tap, tap, tap—he makes me say that.

"That old gentleman is very persistent. He has a pointer such as a man used to make people sing. He is conducting."

It is a fact that he was a keen musician, and taught singing in his school.

After the trance, the medium could see an old man tapping on the

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table, his normal clairvoyance thus confirming the statements of the control. I said: "It is a man whose name was Tapp."

A. W.—"Oh, did you know him?"

J. A. H.—"Yes, very well."

A. W.—"I never heard of anyone of that name before."

No doubt that was why the name could not be got through as a name but was ingeniously symbolised instead. The most interesting feature of the incident was, however, the line of Mr. Tapp's favourite hymn. This seems to exclude the hypothesis of normal knowledge on the part of the medium, and that of telepathy from anyone present, for no one present knew anything about the communicator's preferences as to hymns or anything else. It would seem that this line was given purposely as a piece of specially good evidence of identity, which ndeed it was.

At this same sitting of June 21st, 1917, the control said: "Now there is a stoutish man, fresh colour in his face, an apron on, cloth all about him. A fine-looking man, sixty-three or sixty-four. Someone who kens you (J. A. H.) awfully well. He turns the cloth over and over. Great quantities of it. A salesman, perhaps. He tries to speak and there is rather an effort in his throat. He would suffer rather severely at the time."

This applies to my father, who has often been described as present, and his full name given. The turning over of cloth is almost the best possible identity-touch, for it represents his occupation in early middle life (he retired at forty-five) and he often did it later on at his son's mill, for exercise. Both mills were several miles from his house, and he died in 1898; few people locally could give any information about his early occupation, or, indeed, about his later amateur continuation of it. And as to possible telepathy from my mind, it is to be noted that I should never have "telepathed" that he was a salesman, which he was not. It seemed more like a picture made by the spirit for the medium to see as evidence—from which he made a wrong inference as to the salesmanship. And the "turning over" of cloth is peculiarly apt; more so than anyone can understand except those who know the work of a "taker-in" at a cloth-manufacturing mill. While speaking, the medium made with his hands the peculiar and characteristic movements of "throwing over" cloth, exactly as my father did it.

But I do not lay stress on this incident, or at any rate I do not press it on the sceptic as exceptional evidence, for he will assume—though I am sure that the assumption would be mistaken—that the medium

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somehow knew all about my father. I quote it as introduction to what follows.

After digressions concerning other spirits, the control again referred to the man who was obviously my father, and said: "There is some lady here, well up in years; that man with the apron has brought her." (The "apron" is a linen overall, worn to protect the clothes from dust and fluff when handling cloth.) "This lady is a very nice person, quite old, silk dress, rather big woman, not a kinswoman of yours—I can tell by the feeling. She lived away from here, in some big place. A clever woman. Someone who went about a great deal, teaching people. Fond of learning things, and she may impart things to you later on. You will learn about this lady again in other ways. This man has made it possible for her to come. She went out of the body since him. She had association with a kirk, and she had something to do with politics, interested in politics, and retained the interest as long as she lived."

This recalled no one in particular, so I said: "You can't get her name, perhaps?" After a pause the control said: "I get the name Gregory. Very much interested in politics. She went about a great deal, and knew a great deal, and it has stood her in good stead. . . . The man with the cloth brought the woman who travelled about the world."

This made it perfectly clear. The description applies exactly to Miss Mary Gregory, who died about six months before the sitting. She lived in a distant part of the town (Bradford), four miles away, and I have no reason to believe that the medium—who lives near Halifax—had heard of her; but even if he had heard of her, it is improbable to the point of incredibility that he had ever known that she had any connection with Thornton—the outlying village and ward of Bradford where I live—or with our family. But the fact is that she lived in Thornton in her early days, her father being minister at the chapel attended by my parents. She would leave the village about 1873. In those days her family and my parents knew each other well, and although no close acquaintance was kept up later on, I regard it as an extremely likely thing—granted survival and the gravitating together of like-minded people over there—that my father will have met Miss Gregory and her brother, who also has been named and described at one of my sittings.

It is perhaps worth noting that a son of this brother was killed in the war on May 13th, 1917. The appearance of this young man's father

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on March 8th, and of his aunt on June 21st, may have been connected with this event; for I have had evidence which convinces me that friends on the other side come to meet those about to pass over, and often remain with them until they have had a rest and are ready to go forward in the new life.

In the August following this sitting, Mr. Wilkinson was at Bournemouth, and I happened to write asking him when he would be back and able to come and see me. While replying to me, he had an impression —as happened once before [1]—of the presence of some spirit who was interested in me, and he wrote that he got "the feeling of a person, a lady, about sixty I should take her to be." (She was more, but did not look her age.) "She must have been well-informed, and gives me the impression of a person well-educated in her time in all educational subjects. She might have travelled, because she had some Egyptian charms in her hand. Of course I don't know if ever you have known of such a person or not, but really she is a forceful personality, and quite refined. I am sure her name is Gregory or Gregson; am not certain which, but it sounds like that. And she might have been connected with a clergyman, for I feel such associations about her. I know this is vague, but have just given way to the impression, and tell it you for what it may be worth."

The fact was that Miss Gregory kept a private school in early and middle life. She spent a winter in Egypt not long before she died; it was her last journey of any consequence. (I was uncertain about this until I inquired.) Her father and brother were Congregational ministers. The characterisation is excellent. I had told Wilkinson nothing about her at the June 21st sitting or afterwards, and this letter was quite a surprise; though it is in keeping with what I should expect of her. If she is still in existence, is aware of what is going on down here (perhaps aware of my work through being told by my father), it is in keeping with her nature that she should give evidence of her survival and identity, or even—as was said at the June 21st sitting—assist me in my work in some inspirational way. The idea is pleasant, for she was a fine soul; but it did not originate with me, and therefore was not telepathic, for I had not thought of her for a long time.

Many things have occurred at my sittings which indicate that those on the other side are to a great extent aware of what is going on here, and are interested in what would have interested them if they had been still with us. On one occasion a relative by marriage who had died

[1] *Psychical Investigations*, pp. 15, 61.

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twenty years before was described and named, and the medium had an impression that someone in whom the spirit (a woman) was interested was going to have a baby. This impression grew, and finally the spirit was clairaudiently heard to say " Mrs. Leigh." Mrs. Leigh was the daughter of the spirit purporting to be present, but I knew of no prospective baby. Later on, however, I found that the medium's statements were correct. Mrs. Leigh lived at a distance from both myself and the medium, I had never mentioned her to him, she is not interested in spiritualism, and I have no reason to believe that the medium had ever heard of her.

Regarding this same Mrs. Leigh, it may be mentioned that at an earlier sitting her mother appeared, dressed " in white as if for a wedding." The fact was that the daughter's wedding-day had been decided on a few days before ; but the news had not become public property. This suggested that the mother was not only aware of the impending event, indicating her knowledge by the gala dress and by the impression conveyed to the medium, but also that she purposely appeared in order to give evidence which could hardly be known to the medium. The deceased lady, I may say for completeness, was not known to Wilkinson and was not interested in psychic things. She, also, lived at some miles distance from him, and, indeed, never knew of his existence ; nor, to the best of my belief, did he know of hers. She died long before I became acquainted with Mr. Wilkinson.

On another occasion, January 8th, 1917, the medium said to my sister, M. H. : " Have you been at a funeral lately ? A lady. I see you among a lot of people in black, and I am hearing solemn music. I cannot see anybody (*i.e.*, the person who had died), but I have the impression that the lady died not long ago. It was not a small funeral, there were a lot of people there. I do not feel that it was anybody near to you. Not a relative."

The fact was that M. H. had been to the funeral, on December 30th, 1916, of the wife of a local minister. Many people were there, and " O rest in the Lord " and the " Dead March " were played. The lady was not related to us, but we knew her well. I have no reason to believe that the medium either knew of her death or had ever heard of her or her people ; they had never been mentioned to him by me, and they were not interested in spiritualism.

A little later in the sitting, the medium said : " There is an old lady with you (M. H.), not very long passed away. I have seen her with you before. Quite ladylike. Dressed in black, something white round

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her neck, kind of crocheted wrap. Very old, rather refined, not very big. This woman must have been at that funeral. I do not mean in the body. She is tapping me . . . she is taking me back, she must have known something about the person who was buried. The old lady would be eighty, by the look of her."

Though no name was got, this was clearly the old lady who has appeared before, and whom I called Mrs. Walker in my book *Psychical Investigations*, in which is also described how her husband came to meet her at death, appearing at a sitting two days after her departure, she being apparently still in the *post-mortem* sleep or rest and not yet out of earth conditions. Her husband had for many years been a minister of the same church, dying in 1900. His widow died in February, 1916. It is natural—though I had not thought of it—that she should be interested in the wife of her husband's successor (both as minister and as tenant of the same house), and apparently she met her, or at least was present, at the funeral service in the chapel she knew so well. This Walker family left the district in 1900, long before I had even heard of Mr. Wilkinson, and I do not believe that he ever had any normally-acquired knowledge of them.

Later in this sitting of January 8th, 1917, Mr. Walker himself appeared, the medium saying (in trance at this point, a Scotchwoman controlling): "There is a preacher here, an elderly man, with a rather forceful manner. I would not think he belonged to the Kirk; more like a meeting-house. What do you call it?" (J. A. H.: "Chapel.") "Yes, chapel. Dissenters. I belonged to the United Free Church. I don't belong to any Church now. I go to them all. Some lady is here who has not been gone long. She belongs to this preacher man. They have come together. . . . There is some young lady here who knew you (M. H.) very well. She went very suddenly. Very sad. I would not think she would be more than twenty-two. She went to the kirk you went to. She was a beautiful singer and was in the choir. She is trying to bring me into her surroundings. All about singing. That old gentleman who used to preach—she knew him and sang at his kirk. Not lately—some years back; fifteen or sixteen years back."

This is correct of a daughter of Mr. Walker's, except that she was a little older than was stated; nearly thirty, I think. She was in the choir, of which I also was a member, and she was the principal soloist among the sopranos.

After some evidential matter concerning other people, a curious

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and instructive incident occurred, which I quote, though it involves the giving of Mr. Walker's real name, which—along with others—I disguised in my earlier book, lest surviving relatives should not like the association. But now that these things are better understood, and particularly in view of the fact that these friends communicate entirely on their own initiative and knowingly—therefore in all probability with full willingness that their names should be used—there seems no sufficient reason for disguise. Wilkinson's control said, then : " There is a clergyman, name begins with a capital T. He could not walk very slow ; he trotted." Here the medium got up and " trotted " with his feet, marking time. Apparently the control thought that this was a peculiarity in the walk of the man in question, and that the spirit was doing it for reproduction as an evidential point. It *was* evidential, but not in that way. The gentleman in question had weak health all his life, and suffered from heart trouble in his later years : during the seventeen years that I knew him I never saw him run or even walk very fast. But the words and the action indicated his *name ;* for it was Trotman. Apparently the machinery of the medium's brain was unequal to the task of getting the unfamiliar name (*cf.* the just-quoted case of Mr. Tapp), as a typewriter cannot write Greek letters if it has no type for that language ; so Mr. Trotman did a little humorous pantomime to indicate the name, somewhat as I, when I become a communicating spirit, may show a picture of a hill, if I cannot get my name through—and perhaps a Round Table as an attempt at " Arthur," which might not be understood if the sitter were dull, as many of us probably are, for I believe that many symbolic points of this kind are missed. Hence the importance of taking full notes, so that they can be studied at leisure. If notes are not taken, things which were not understood at the time are apt to be forgotten, having no apparent relevance.

Immediately after the incident just mentioned, the communicator seemed to continue his evidence of identity—or perhaps to revert involuntarily to old habits associated with earth conditions—by preaching a little sermon. I did not succeed in getting it down in full, for the control spoke rapidly. My notes are as follows :

" Life is composed of seasons. First the season of rejoicing ; you are born, a gift to your parents. Then happiness and promise and development. Then love, marriage, family ties and responsibilities. Then often sickness, and death. But there is one law that worketh through it all, inexorable, always moving on. Nature is transformed,

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always improving and perfecting. That is a feeble expression of what the man behind me is saying."

And I further spoilt it by inadequate reporting; but, as given, it sounded very good. There was no direct control by this communicator; he spoke to or impressed the regular control—*i.e.*, the intelligence which habitually speaks through Wilkinson in trance and which is accustomed to managing his organism—and the control repeated what he said as well as she could.

After the sermonising, the control said: "Is there anything you would like to ask me before I go?" Having no sensible question ready, I put the first that occurred to me: "Shall I get rid of bodily disabilities, and be able to get about, when I go over to your side?"

"You need have no misgivings about that. No more pain. You will go about as you want to. But you must not think that your life has been wasted. There is purpose behind all. If you had remained well, you would not have obtained the knowledge you have obtained. And you are very widely useful. You have no idea of the great range of your influence. Invalids are necessary in the scheme. Do not get depressed, for all is well."

I never do get depressed, so it did not seem that the speaker was reading my mind. I then asked:

"What about cremation? Is it good or bad?"

"Good, most decidedly. When the body is done with, it is best destroyed so that it cannot be a source of harm to the living. It is merely garbage—not a nice word, but that is what it is. Better out of the way."

I asked: "Any time after death—no need to wait any particular period of time?" (This because of the idea that departure is gradual and that too early cremation may cause pain to the spirit which is not yet quite clear of the old tenement.)

"Yes, as soon as you like, so long as it is made quite sure that death has taken place. In cases of sudden death care is required, but all that is necessary is to make sure."

The control then said good-bye, and after a minute or so the medium came to himself, and, looking vaguely out of the window, said: "It's raining." After another minute of silence he was quite himself, but complained of feeling cold, as always after trance; he also remarked that he "lost himself" suddenly, without expecting the trance. I said: "Where have you been?" and he answered: "I don't know; I never know anything."

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This digression is of course merely by way of description; such trance-talk is common enough, and is not evidential or specially interesting, though our critics usually seize on it and neglect the evidence. Since the date of the sittings just alluded to, I have had a series of evidential incidents which seem to have been specially arranged by my friends on the other side with a view to eliminating not only the hypothesis of telepathy from me, but also that of telepathy from anyone known to me. This is a difficult thing, but the attempt was successful. I may be able to describe these incidents in a later article.

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FAITH AND SUPERSTITION

By Lily Dougall

PEOPLE often talk glibly of faith and superstition as opposed to each other; and about such talk the cynic says that "faith" applies to whatever the speaker believes, and "superstition" to whatever, other than that, anyone else believes. The terms are so used that the cynic has a right to his gibe. I want, for convenience, to define the time-honoured terms in my own way. In this article "faith" shall be equivalent to belief or trust in what one believes to be good because it is good or is in harmony with the sum of good. "Superstition" shall mean belief in what is marvellous because it is marvellous, or belief in any doctrine because it is founded on, or attested by, marvels. For example, as applied to the miracles of the New Testament, faith, according to this definition, would mean a belief in them—whether mistaken or not—that grew out of an estimation of them as intrinsically good, as in harmony with the highest conception of the universe that the believer could frame, and therefore would include that reverence for truth that would keep the mind open to evidence. Superstition would mean belief in them because they were marvellous, and a belief in the Christian doctrines because they were originally evidenced by marvels.

Let us consider the bearing of this on the attitude of mind with which we approach the consideration of the evidence for phenomena admittedly supernormal.

Clearly even the belief that knowledge of fact is a good thing involves a certain faith in the order of the universe and in reasonableness as the basis of human life. All advance in human civilisation has been made by reliance upon the behaviour of our environment. If one man, being assured that inexplicable phenomena have occurred, at once founds on them a belief that unseen spirits are tampering with material things or with human dream-images or thoughts; and another man, assured of the same phenomena, is convinced that some natural

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explanation will yet be found, the first is superstitious and the second has faith. Even though the first man prove right in his inference and the second wrong, the first man's grounds for his premature conclusion would be superstitious and, because irrational, socially disintegrating. The second man's faith in an ordered and explicable universe would be rewarded by discovering, by rational observation, not only the fact of spirit interference, but such detail of its method and conditions as would show that an orderly nature included it. For, if spirits interfere, science could only show that the interference took place by showing that it always occurred under certain conditions, and could, in certain of its aspects, be relied on. Until this was shown, the man who believed in spirit interference merely because of supernormal phenomena would be imagining miracles in every gooseberry-bush and infecting the commonsense of his community.

Yet in dealing with the spiritistic hypothesis as applied to any supernormal phenomena we have a further aspect of the case to consider. Science cannot prove or disprove our religious beliefs. From a scientific point of view these beliefs are assumptions. We count them rational if they do not contradict any explanation that science can give and if they are based upon a sound philosophy which gives some account of what science cannot account for. Science may, by its ultimate analysis, only prove that no adequate cause for an event comes within its purview. Spirit agency as the cause of such supernormal event may transcend its sphere. It would seem, then, that not only will faith or superstition enter into our judgment in these matters in inclining us to believe or disbelieve before scientists have agreed in their pronouncement upon spirit agency, but in determining the further assumptions we may need to make in regard to what transcends the scope of science.

A few illustrations will make this clear. There are few facts better attested by human evidence than that of the frequent appearance of the devil to religious people at their devotions between the fourth and seventeenth centuries.[1] The evidence for the objectivity of the devil is like in kind to, let us say, the evidence for the costumes worn at the same period. Yet we accept the costumes as historic; but, while we may believe the visions were seen, we do not accept the devil as historic, although he is depicted in the same art and described in the same

[1] See records of S. Anthony the Great, 356; S. Datius, 552; S. Theresa, 1582, etc., quoted in Baring-Gould's *Lives of the Saints*.

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annals. If we are not materialists our reason for rejecting this mediæval devil has to do with faith ; it is the result of our faith in the dignity and reasonableness of the universe. To the pure agnostic—if such a being exist—a devil with a black face who could materialise himself and gnash his teeth at a saint is as possible as any other intrusion from the spirit world. Most of us have now made fundamental assumptions about the universe which cause it to be impossible for us to believe that the supreme evil could manifest itself in that way. We are certain that there is plenty of evil in the world, and we may or may not believe that there are evil spirits ; but the devil as seen in the Middle Ages—seen and spoken to, and sometimes felt, by men and women whose *bona fides* we have no reason to doubt—was an intellectual conception the origin and development of which we can now trace, and to which we attribute no objective reality because it is out of harmony with our fundamental faith about the universe.

I have frequently visited a New England watering-place near which is a large natural amphitheatre used constantly for open-air meetings. Before one of these meetings, which was to be a religious conference similar to those now so popular at Swanwick in Derbyshire, I was taken to call upon its chairman, and found him and some of his speakers in grave anxiety. They told us that about a year before, in India, in a missionary school for girls, a wave of fresh religious interest had had a strange accompaniment. Some Indian girls, holding a sober prayer meeting, suddenly saw flames of fire upon each other's head and began to speak in an unknown tongue. Their teachers tried at first to suppress the matter, but as the weeks went by the "unknown tongues" were constantly heard at common prayer. The movement spread to other Indian schools, associated always with a religious revival that had no other extravagance laid to its account. The "tongues" passed over into America. In the Western and Central States, in churches and in religious meetings, the same manifestation had occurred, and now . . . We perceived that the story had not been told us merely for its curious interest. A carefully compiled three days' programme of addresses upon the chosen subject was to be carried out. Some thousand people were already taking up camp lodgings around the theatre ; hundreds more were expected as day visitors ; and news had just been brought that a small company of good people who spoke by the Spirit in "unknown tongues" had arrived in the place. We were told that the claim to be "moved by the Spirit" in this way still appealed to the unreasoning awe of

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religious people, so that neither reason nor force could be used on the morrow if the "tongues" were heard.

We naturally went to the meeting next morning. The address, on some subject of Christian ethics, was excellent. The discussion that followed showed a good average of understanding and education in the audience. Suddenly, about noon, a weird sound arose; it seemed to echo in fateful fashion all racial memories of oracle and witch. An awed hush fell upon all the people. The very wind that had been gently moving the warm pine-trees seemed to fall; the very voice of the sea on the near shore seemed to cease. A gentle, high-pitched voice, rising and falling in a regular rhythm of meaningless sounds, grew insistent. A second voice arose. Soon there were a number of the "Spirit-possessed" joining in a gentle, monotonous, meaningless, high-pitched chant. One we saw distinctly—a middle-aged woman of saintly appearance and quiet garb, who stood rocking gently to and fro, her eyes closed, apparently entranced and unconscious of her surroundings. The great meeting had to be dismissed.

Why are we convinced that the voices of these good people were not controlled by the Divine Spirit or by any discarnate spirit? The materialist has his answer ready; for him discarnate spirit does not exist. The scientific mind will try to show that known causes—hysterical automatisms, their infectious nature, and the inherited human aptitude for religious superstition—give a sufficient account. But if man is capable of any religious faith which can put him in conscious touch with spiritual reality, this answer of science may explain only the channels through which the Spirit moves; science may some day be able to give an account equally adequate and equally inadequate of all religious experience. In its psychological aspect all religious experience ought to be scientifically accounted for.[1] The pure agnostic is bound to say that he knows no reason why God or angelic beings might not thus use the subconscious minds and vocal chords of saints to break up a rational conference; but, as we have suggested, the consistent agnostic is rare. The reckoning up of philosophic or spiritual values will intrude itself, and judgment on such grounds involves faith in values for which science has no test.

Let us take, again, the innumerable stories in which discarnate saints have comforted their devotees or acted in their behalf; or again, the visions of holy men who in trance saw the horrors of

[1] Cf. *The Spirit*, ed. B. H. Streeter. Essays II. and VI.

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purgatory and of hell. The spirit agency in these occurrences is not accepted or rejected by us on a mere question of evidence. Our "sense of reality," our "philosophy of the universe," the deep "values" of our souls on which always rests such faith as we have—all these affect our judgment.

Since this is so, let us consider a little more carefully the exact relation which both science and religion bear to faith and superstition. Science has disentangled itself but slowly from the mad hopes and terrors and fanatical fascinations of magic and miracle. Passion for truth, the patience and labour which are its fruits, no doubt existed in eminent magician, in alchemist and astrologer, though in them combined with that complex energy which, stimulated by the excitement of the marvellous, seeks short cuts to knowledge and power. There has also been true faith combined with the sacerdotal craft that constantly sought, and still seeks, to found religious faith on miracle, and to stimulate it by reverence, not for the good, but for the awful and mysterious. Religion is disentangling itself more slowly from magic; but that faith founded on belief in the good is as distinct from all we may call magic-mongering as is science may be shown by many familiar examples. One that lies near our own day is the use which the godly Victorian cottager made of the Bible—to him a miraculous book, verbally inspired from end to end. Yet look at some old volume which he loved and pored over. Most of it has not been read. The worn portions are those which appeal to his ideal of good.

The real authority of the book for him lay, not in its miraculous character, but in the power of certain portions of it to say, "See, heart of man; this is what you value and know to be divine." We do not always find faith combined with religion, but when it is, it rests on a higher authority than could be bestowed by even the most conclusive evidence of the intrusion of the supernatural into the common way of things. Such intrusion may be heartily believed in and may divide the interest, but it is actually irrelevant.

As we have seen, so far as mere evidence goes, the "unknown tongues" certainly happened; so also did the apparitions of mediæval devils. Visions that depicted the horrible tortures of hell[1] also happened; and certain physical activities attributed to discarnate saints—such as the finding of lost property or the healing of diseases—certainly occur. Whether we believe these things due to spiritual

[1] E.g. *The Revelation to the Monk of Evesham Abbey*, 1196.

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agency or not is a question which involves our ethical and religious values.

If, then, science has no test for what may lie behind our supernormal experiences, how are the values of faith to be applied to them—to the age-long marvels of hypnotic trances or automatisms? Has not the human world through all its undeveloped and developed civilisations been instructed, impelled and compelled by the marvels of trance-land? Intoxications from fumes or drinks, giddiness from the sacred dance, reverie caused by rituals that arrest and strain the attention, the ecstasy of intense emotion, the quiescence of profound thought, the trance of the hysteric or the hypnotised, the delirium of the maniac—all these have been regarded as states of special illumination or demoniac possession. Most of them, in the normal human being, are conditions from which the complexity of common consciousness falls away, and in which strange things happen which do not happen otherwise. The medicine man chewing his betel-nut sees suddenly, as in a vision, how to rule his devotees. The oracle inhaling incense experiences strange power shrewdly to guess the fate of nations. The Red Indian, fallen in the wheeling dance, sees the Great White Spirit and his ancestors in the happy hunting-grounds. The prophet who loses consciousness of self in the enthusiasm of his subject cries with conviction, "Thus saith the Lord!" The monk or nun, in the long prayer ritual, sees visions or hears voices or experiences levitation. The hermit of the East, who seeks to do away with the things of sense, can, by his trance practice, transcend the world and have foretaste of Nirvana. Lost in the joy of some external beauty, the poet or artist experiences the interpreting vision of genius which he may work out at will but cannot experience at will. Half asleep and in brown study, the laborious statesman catches an all-sufficient glimpse of the road to empire, and forms a judgment of which he can give no rational account. By the light of these things man, reasoning animal as he is, has often been guided on his pathway down the ages. Has the light of trance-land been an *ignis fatuus*, or the lamp of life?

Certainly, all down the ages psychological happenings that overrode the will of their subject have been attributed to the influence of discarnate spirits, divine or otherwise. The dream, the delirium of fever, the impulse to automatic speech or writing, the impulse or idea that surges up unbidden within the mind, ecstasy, trance, absence of mind—all these have been the conditions, and sometimes the stock-in-trade, of so-called inspiration. It is impossible to read the accounts

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which modern research has given us of the "schools of the prophets," and the early Hebrew conceptions of the influence of the Spirit, without perceiving that whenever a human being was, to use an excellent old phrase, "beside himself," he was held to be inspired. He might speak truth or falsehood, and for a while the same God might inspire both; but as the conception of God became higher, lesser or evil spirits inspired what of falsehood or malevolence came from the lips of the involuntary speaker. In the Mystery Religions, in the classic religions of Greece and Rome, we come constantly upon the same thing in tales of oracle and ectasy too numerous to recount. In the New Testament we have vivid pictures of the violent neurotic affections attributed to demoniacal possession and of the practices of people possessed with the "spirit of divination." We read of the incoherent automatic speech that was believed to have divine origin, and of dreams and ecstasies full of valuable import.

The course of history, the facts of evolution, seem to show that life is educated by being allowed to search out its own way, to discover good and God by trial and experiment. There is in human history no sign of the Divine compulsion or of the exact direction so fondly dreamed of by all generations of lazy minds. The school of life and faith demands the utmost exercise of intelligence. Yet if we believe that man lives in a spiritual environment of Divine Wisdom, we must believe that spiritual help, persuasion and advice are pressing in upon human souls whenever they give the Spirit ingress. And since the revelation of good comes to us also through experience of earthly friendship, it is natural to assume that this revelation should also come in the love of our friends who have passed through the gate of death. Our question, then, is not whether spiritual inspiration exists, but, do we believe in it because it has some hallmark of queerness by which we may know it to be valid? Is it to be vouched for because the hand writes of itself, or the mouth speaks of itself, words that the conscious mind has never formed? Do we accept revelation because it has come through some back door in the cellarage of the human mind, or do we sift the things that come that way by our standard of good, and accept as inspired only the things that are good because they are good?

A review of the past shows us that time has sifted out such historic happenings as illuminating or otherwise in accordance with our sense of good. Our psychological explanation, as far as it goes, shows that these unexpected happenings of the mind are the product of past reasoning and past conscious experience of the individual or the race;

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it is no more surprising that some of them should be illuminating than that illumination should come to us through our ordinary mental processes.

Since, then, we find that in past history we do wisely to test all by our estimate of good and evil, and while the value of contemporary spiritistic phenomena is in dispute, it behoves us to apply to them the same tests, admitting that contemporary criticism of any movement must be tentative.

In the first place, let us ask what the scientific method could be expected to prove with regard to spirit communication. Can any amount of cumulative evidence show that such information as could be verified was entirely beyond the human knowledge of mediums through whom the information came? If an exhaustive examination of the human mind in automatic conditions afforded no examples of the same kind of knowledge except when the claim of spirit agency was made, we should perhaps have all the evidence on this subject that science can give. We are far from having such evidence, but, even when we have it, shall we have more than an addition to other inexplicable facts of animal intelligence to which we have no clue? What knowledge and experience it would require to enable any of us to tell the best way through the air from England to Africa by which *en route* the best resting-places for birds could be found! Yet in several species of birds nesting in England the parents flock and fly away weeks before the fledglings go. The young birds leave the valleys in which they were hatched and thread the untracked pathway with unerring knowledge. We may assume that discarnate spirits guide them, or we may assure our children that instinct is the guide: both answers would only veil our ignorance. It therefore seems legitimate to doubt whether science in its ultimate research can do more than prove that we do not know how the mediums gain their information.

On the other hand, psychological and anthropological science can show us good reason why, in and after an age which undertook to deny man's immortality, the dream-mind of the race should be filled with voices and images of the newly dead, and should keep reiterating promises of a pleasing heaven. We have material gauge of the length and the strength of the racial belief in immortality—the valuable implements buried in early tombs, the money paid to ecclesiastical coffers for welfare in the further life, are valid evidence. What the race has held so long and with such emotion would, when suppressed, be liable to recur in dreams or other fantasies of the mind. The

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spiritualistic interpretation of psychic phenomena is much like the "wish-fulfilment" of the dream self. In face of the uncertain light which science now or in the future may give, let us estimate the value, as far as at present observable, of the spiritualistic belief. It has been claimed by several spiritualists that a new theology has come to us through the séance. This is a mistake made in evident ignorance of popular theological speculation. I once had occasion to read a good deal of religious pamphlet literature produced in America in the thirty years preceding the Civil War. With access to these writings it would be easy to show that the jargon of the earliest American spiritualists was only a pale and chaotic reflection of vigorous religious speculation which had been previously published. Spiritualists like Sir William Crookes, who affirm that new religious light has come through the séance, [1] have evidently not studied the great movement of speculative Christian thought which, since the seventeenth century, has shown itself in all parts of Christendom, due partly to the development of imaginative sympathy with sin and suffering and partly to the natural application of the facts of biological growth and development to religion and ethics. With the exception of the belief in communications from the dead, there is no idea in the interesting account of "spiritualism as a religion" given by Mr. J. Arthur Hill [2] that has not been tossed to and fro in the discussions of liberal theologians for the last three-quarters of a century. Thus it does not appear that such "inspired" messages as spiritualism produces can be valued as a contribution to religious thought, for so far there is in the so-called "messages" of the mediums nothing original.

Again, it is difficult to see how it is possible for any authentic description of the after-life to come through spirit agency, even were that agency genuine, because it must always pass through the mind of the medium whose dream dramatisations can never be certainly distinguished from the real "message." Such descriptions as have so far been recorded are chiefly vacuous, often inconsistent with each other, and often absurd.

It can be seen, from the history of many Christian saints in different ages, and certainly from the history of many modern reformers, that faith, entrenching itself in its highest values, centres itself more and more upon communion with the supreme Loveliness, which must be

[1] Art. *Spiritualism*, in Chambers' Encyclopædia, 1888 edition.
[2] *Spiritualism, its History, Phenomena and Doctrine.* Part II. Chapter I.

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personal and must be the guarantee of all truth. The argument for religious faith rests on our human values. Truth, loveliness and virtue are nothing to us in the abstract but logical counters. Of these, as qualities in things, only beauty is visible. But because they all inhere in personality we find in them our supreme values. If the universe be not teleological and the expression of such personality we have no evidence that truth exists. If human values—let us say the values of Shelley as expressed in *Prometheus*—belong to man alone, then the world is for him chaotic. "If virtue is peculiar to the mind of man, the universe is a fraud to us. We can have no fellowship with it, for it is indifferent to all we most value. It does not mean to produce in us righteousness, or the love of it; it does not mean to produce beauty, or the love of it. There is in it no coherent or purposive set of facts which we can call truth; and our love of truth, like our love of righteousness and beauty, is a chance product of a process indifferent to all such things." [1] Then we may go on to say, "The very word *universe* is a concept of our own implying some unity and coherence in the mass of facts of which we are aware. There may be nothing but facts without any unity or coherence. Or it may be that we are not aware of the reality of anything." [1] Either the universe is spiritual, and we through our values are in touch with spirit, or all search for truth is futile. It is this argument, unconscious and implicit in the godly mind, on which all faith that postulates a purpose in the world and the finding of human values in God has taken its stand.

Asking, seeking, knocking at this door, man has at all times believed himself to gain admittance to Creative Spirit and receive for response assurance of, and gradual elevation of, his highest values. The natural powers of the soul are believed to become the instrument of the Divine Spirit when man's desire is in harmony with the creative purpose. By the practice of worship and prayer the religious mind attains to an incommunicable certainty of obtaining personal response. It is quite open to the psychologist to explain this in terms of some law of suggestion. On its psychological side no doubt the process could be traced. The belief that this process is used by God to impart His wisdom to the soul is based on the more fundamental belief that unless the ineradicable values of the soul have reality it is a world without truth. Psychological science can, of course, also give an account of these values—an account as adequate and as inadequate as its account of the soul's apprehension and appropriation of all else.

[1] *The Kingdom of Heaven*, by Mr. A. Clutton Brock, pp. 2-3.

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Growing by trial and experiment more and more convinced of the delight of this communion with God, faith finds all human fellowship enhanced thereby. In the Divine friendship is found, not only a perfect guarantee, but a perfect medium for continued, though wordless, fellowship with the friends who have passed the gate of death. There are innumerable expressions in religious literature of this contentment of faith. Its first postulate is that the human soul exists only to satisfy the love of the supreme Spirit, and must therefore grow increasingly through immortal ages more worthy of that love. To such faith the Vale Owen heaven could have no value ; nor could any sign that only gave assurance of the mere continued existence of the dead. Nor would it be easy for men who have this faith to see how these things could help those who have it not to that communion with God which involves all that is of true worth. Perhaps the simplest expression of this faith founded on value is given mystically by Blake :

> For Mercy, Pity, Peace and Love
> Is God our Father dear;
> And Mercy, Pity, Peace and Love
> Is man, His child and care.

Perhaps the clearest is that of Paul, " I know whom I have believed, and am persuaded that he will keep that committed to him."

Yet while there are such numbers of people to whom death appears like a leap in the dark, and whose belief in the continued existence of their departed friends is *nil* or quite vague, it cannot be denied that the scientific assurance of the continued existence and identity of souls beyond the grave would add materially to human happiness. If such assurance, and communication with such souls, be possible, it is undoubtedly a proper subject for scientific investigation, because all increase of knowledge is good, and such knowledge, at any rate at first, might be a satisfaction to many. One may guess that when the novelty wore off the doubts of the pessimist and the faithless would centre round the next phase of existence exactly as they have heretofore circled round every crisis of life and death. Would these not soon cry, " Who knows to what misery this next phase may lead ? Who knows whether existence in it is worth having ? Who knows how long that existence may be prolonged ? "

I incline to believe that the ultimate value of modern spiritualistic speculation is the extension of human knowledge as regards the powers and capacities of the sub-conscious, which appear to develop under trance conditions. Surveying spiritualism from the first " Rochester

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rappings" to the present day, it would appear probable that, like astrology and alchemy, it will give birth to a sound science—a science by which we shall understand and control the extended human powers of which in certain abnormal conditions only we now catch fitful glimpses. As the philosopher's stone was never found by any alchemist, nor the future ever read in any horoscope, so it may be questioned whether verbal communication with discarnate souls is among the psychic powers which the new science will discover.

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PSYCHOPATHOLOGY AND PSYCHIC RESEARCH

By T. W. Mitchell, M.D.

UNUSUAL phenomena which were considered supernatural have been observed in all ages, but it is only in modern times that their serious investigation has been undertaken. Some of these unusual happenings appeared to be independent of all human activities, and were commonly ascribed to the agency of good or bad spirits who had command of the forces of nature, and acted directly, without human intermediation, on the objects of the natural world. But very often it was noticed that some human being was more or less directly connected with the supernatural manifestations. From the beginnings of history we have records of peculiarly endowed or afflicted persons who seemed to have the power of acquiring knowledge in a supernormal way, or in whose presence seemingly inexplicable events in the physical world sometime soccurred; and it was observed that exhibition of these powers was often accompanied by some mental or bodily change in the person so gifted which was commonly thought to be due to "possession" by an alien spirit. These two kinds of supernatural manifestations have their counterpart in modern times in the psychological phenomena and the physical phenomena of spiritism; and the mental or bodily change observed in seer or magician corresponds to what we now know as mediumistic trance.

It is useful and convenient to make this distinction between the two groups of phenomena with which Psychic Research has to deal, for the significance that may be ascribed to observations in one group may be quite different from that which may be suggested by experiences in the other. The interest of the psychopathologist turns naturally towards the former group because of the more purely psychological problems which it presents, and because it is here that his special knowledge is likely to be of value. In Psychic Research the first aim of the investigator is to find, if possible, some natural explanation of what appears to be supernatural. The investigator of the

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physical phenomena ought to know something of the psychology of suggestion and illusion, but the special knowledge and capacity needful for the detection of fraud is perhaps his most important qualification. The investigator of the psychological phenomena needs different qualifications. His main problem is the supernormal acquisition of knowledge, and although in this region fraud cannot be ruled out, it is here less frequently resorted to, and more easily guarded against.

The association of trance or allied states with these two departments of Psychic Research would, of itself, suffice to bring them both within the province of the psychopathologist, but in the following pages space will permit of reference to only two topics on which his special knowledge is particularly helpful and necessary. One is the nature of the trance state ; the other is the source of the supernormal knowledge which sometimes appears to be manifested therein.

Both Psychic Research and the psychological investigation of abnormal mental states have arisen from the same source, and although, in the course of time, the two lines of inquiry have widely diverged, it is well to keep in mind their common origin. The attention of the scientific world was first directed towards the "supernatural" by the work of Mesmer, and when "magnetic somnambulism" was discovered by Puysegur, in 1784, a common starting-point was found for two lines of investigation which have culminated, in our own time, in Psychopathology and Psychic Research. The endeavour to understand the nature of the magnetic trance was the point of departure of inquiries which have led to the knowledge we now possess of the psychology of abnormal mental states. The range of the phenomena associated with trance states, and the apparently supernormal powers of entranced persons, were abundantly demonstrated during the wave of spiritualism which swept over Europe and America at the close of the Mesmeric period ; and, in the end, scientific men were compelled to examine the nature of the phenomena, as well as the nature of the trance in or through which they were manifested. The study of these and allied phenomena is the special province of Psychic Research. The nature of trance states is, to this day, one of the most important problems in psychopathology, and is, perhaps above all other problems, the subject-matter of psychopathology in its relation to Psychic Research. For an understanding of trance states carries with it some understanding of almost all conditions in which apparently supernormal manifestations are observed. Not only trance utterances and trance

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writing, but "automatic" writing, table-tilting, crystal visions, apparitions, and other phenomena often claimed to be spiritistic, have their mechanism revealed when we understand the nature of trance states.

The magnetic trance of the Mesmerists is now known to have been identical with the deeper stages of hypnosis described by modern observers, and there are good grounds for believing that mediumistic trance, in all its forms and degrees, is psychologically of the same nature. In the one case the trance is induced by the hypnotist; in the other it is spontaneous or self-induced; but the resultant psychological state appears to be similar in every important respect. Spontaneously occurring trance, unaccompanied by mediumistic powers, is common in hysteria, and here again the same psychological mechanism is involved.

The field of psychopathological inquiry at the present day extends far beyond the region of hysteria and hypnosis, but it should not be forgotten that all our most recent knowledge, not only of abnormal mental states, but even of the structure and process of the mind, had its beginnings in, and is the result of continuous outgrowth from, the pioneer work of the animal magnetists and hypnotists.

For the purpose of understanding our present-day conception of the nature of trance it is not necessary to examine the views of these early workers. We need not go farther back than the latter half of the nineteenth century, when the modern revival of hypnotism took place under the influence of Liébeault and Bernheim, at Nancy, and the modern study of hysteria was started by the work of Charcot, in Paris. The memorable controversy between the Paris and the Nancy schools on the relation of hysteria to hypnosis did much to help our understanding of both of these conditions, and the extensive studies of Pierre Janet on the psychological mechanisms involved in their manifestations provided us with a principle which we still make use of in the description and interpretation of trance states and their accompanying phenomena.

Janet showed very clearly that, in the common symptoms of hysteria, consciousness becomes dissociated, or split into two or more parts. In this disorder the sensations from an anæsthetic area of the skin, for example, are not really unfelt, although the patient may truthfully say that he is not aware of them. If such a patient be pricked on the anæsthetic area a certain number of times, and asked how many times he has been pricked, he will be unable to tell; but if

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he be then hypnotised, not only will he feel clearly pricks inflicted on this same area, but he will remember how many times he was pricked on the former occasion. This seems to show that both before and during hypnosis there was clear discriminative consciousness at what we may call the hypnotic level.

In this simple experiment we have an illustration of what is meant by a dissociation or splitting of consciousness. The sensations from the anæsthetic area would, in normal health, be included in the "waking consciousness." In hysteria they are dissociated, so that the waking consciousness is unaware of them. But the experiment shows that the loss of awareness is not absolute. The sensations are noted and discriminated by some self. What this self is, we need not now stop to inquire. It may be a self that differs from the waking self only in the possession of those sensations which the waking self has lost. In so far as these sensations are in question there is a self that has them, and a self that has them not. Since the self that has them is revealed or produced by hypnosis we may refer to it as the hypnotic self.

Between such a doubling of the self as is revealed in hysterical anæsthesia, and that met with in fully developed double personality, every shade and degree of complexity may be found. The section of consciousness split off may be so small that its dissociation leads to no appreciable alteration of the waking self, and its incorporation in the hypnotic self is insufficient to cause the hypnotic self to appear appreciably different from the waking self. Such is the case when the dissociation bears, for example, on the sensations from some limited area of the skin. On the other hand, the content of the dissociated part of the mind may include so much of what ought to be in the possession of the waking self that its loss may profoundly alter the character of the "primary personality," and the "secondary personality" which gains possession of, or is constituted by, the dissociated mental material, will show a character which may be strikingly different from that of the restricted personality resulting from the loss of this mental material, and also from that of the normal "whole" personality.

The normal whole personality would seem to be practically non-existent so long as the dissociation lasts; but the restricted personality and the personality which possesses the dissociated mental material seem, sometimes at least, to exist concurrently, and they may alternate one with the other, each taking possession of the bodily organism for a time, and then disappearing to make way for the other. Alternating personalities of this kind are most readily understood if we compare

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them with what may be brought about in hypnotic experiments. When deep hypnosis can be induced it is found that restoration to the normal state is accompanied by complete forgetfulness of all that happened during hypnosis. But when hypnosis is again brought about, the hypnotised person can remember all the events of the previous hypnosis as well as the events of waking life. We may therefore speak of a hypnotic self whose knowledge is more extensive than that of the waking self, and since the hypnotic self claims to have concomitant awareness of all that happens to the waking self, we may use Dr. Morton Prince's term and call it a "co-conscious" self. In the induced alternations between waking and hypnosis, and between hypnosis and waking, we have a parallel to the self-induced or spontaneously occurring alternations of co-conscious personalities.

Not all secondary personalities, however, claim co-consciousness. There is another type in which the memories of the alternating phases are mutually exclusive. If A has a secondary personality B, which is co-conscious, we may say that A does not know B, but B does know A —knows all A's thoughts, feelings and actions directly, and knows them as belonging to A. But if A and B are simply alternating personalities without co-consciousness, we say that A does not know B, and B does not know A. "Sally" of the Beauchamp case, and "Sleeping Margaret" of the Doris Fischer case, may be taken as extreme examples of co-conscious personalities, so far at least as their claims to co-consciousness are in question. Sally and Sleeping Margaret maintained that they were always conscious—not only when the other personalities were awake, but also when they were asleep. Sally and Sleeping Margaret declared that they themselves never slept. Ordinarily, however, a co-conscious secondary personality merely claims to be aware of what the primary personality feels, and thinks, and does, during waking life. At the other extreme—the complete absence of co-consciousness—we find such examples as the secondary state of Ansel Bourne, and the BI and BIV personalities of the Beauchamp case. Ansel Bourne fell into a secondary state which lasted for many months, during which time there was no knowledge or conscious recollection of any of the events of his previous life. Then there was a return to the normal state, with complete knowledge of the life previous to the lapse, but complete forgetfulness of the life during the secondary state.

Although the merely alternating type of multiple personality in which no co-consciousness is shown is in some ways the simpler and

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more easily understood, we yet know less about it than we do of the co-conscious type. For we have no experimental parallel for the simply alternating type, whilst in deep hypnosis we have a close parallel in many important respects to what is observed in co-conscious personalities. What the essential difference between the two kinds of dissociation may be it is difficult to conceive, and we may find that all secondary personalities are potentially co-conscious, although the conditions necessary for the manifestation of co-consciousness may be absent. A secondary personality that is not co-conscious may merely be a secondary personality that is subliminally asleep.

It is now very widely recognised that in the spontaneous and experimental phenomena of hysteria and hypnosis we find examples of the mechanism through which many supernormal manifestations are brought about. Visual and auditory hallucinations are easily induced by suggestion in good hypnotic subjects, and not only can these hallucinations be induced during hypnosis, but by post-hypnotic suggestion they may be made to appear to the waking self at a particular time or place. So, also, the subliminal motor activities concerned in table-tilting and automatic writing may be experimentally induced. Any good hypnotic subject can be trained to produce automatic writing in the waking state, and self-training without hypnosis may bring about the same result; or the power may appear spontaneously whenever the requisite dissociation is present. The "controls" of mediumistic trance bear the closest resemblance to the secondary personalities described in the writings of the psychopathologists, and there are good grounds for believing that all trance personalities are of this nature. If this view is accepted it is important to assume that the controls of mediumistic trance are always of the nature of co-conscious personalities, and that any knowledge acquired by the medium in ordinary life becomes a possession of the control, although knowledge gained by the control during trance may never rise into the medium's waking consciousness. We must assume a complete parallelism in this respect with what we know of hypnotic trance.

Students of psychopathology would, as a rule, maintain that every control is a secondary personality formed from the medium's own mind, or a dramatic impersonation assumed by such a personality. Some students of Psychic Research believe that mediumistic controls are always what they purport to be, namely, extraneous spirits who have temporarily obtained possession of the medium's body. There

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are other, more cautious, investigators who, though willing to concede that the ordinary control in mediumistic trance may be a secondary personality displaying supernormal powers, are nevertheless greatly impressed by some instances of what is known as "direct control." In these cases the spirit of some departed friend of the sitter purports to take possession of the medium's body, and communicates directly, instead of through the intermediary of the medium's usual control. Voice and gestures, intonation and mannerisms of the purporting communicator are then reproduced, it is said, with a startling verisimilitude which is deemed to be beyond the power of any secondary personality to imitate, no matter how great its knowledge of the dead friend may be, or how such knowledge may have been acquired.

The scientific investigator who seeks to find a naturalistic explanation of all trance phenomena may leave on one side, to begin with, this question of direct control, but he is bound to face the problem of the supernormally acquired knowledge which, in the opinion of almost all serious students who have had personal experience, or who have carefully examined the evidence, trance personalities do sometimes undoubtedly display. His simplest course, and one very commonly adopted, is to deny on *a priori* grounds the possibility of any supernormal acquisition of knowledge, and to refuse to examine the evidence which workers in Psychic Research lay before him. But this is merely to shirk the problem. If, however, he undertakes personal research, or if he studies with care the evidence supplied by other investigators, he may be forced to conclude that instances of supernormal acquisition of knowledge do occur, and he must be prepared to adopt some hypothesis which will cover all the facts to be explained. Very often the possession of knowledge which could not have been normally acquired may be accounted for, if we admit the possibility of one mind being able to communicate with another mind otherwise than through the ordinary channels of sense. And if we once admit the actuality of supernormally acquired knowledge, we find that we cannot take a step forward on the road to explanation unless we admit telepathy as a fact of nature. Any alternative hypothesis which can be suggested will appear more extravagant and unlikely.

But the problems are not all solved by the acceptance of telepathy. Within recent years much evidence has been forthcoming, which seems to show that agencies other than incarnate minds in telepathic communion are at work in some of the communications received through automatic writing or trance utterance. The long series of "cross

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correspondences" recorded in the Proceedings of the Society for Psychical Research seem to call for some explanation other than telepathy between the living, or else for telepathy of a kind different from anything that we have hitherto conceived.

The alternative hypothesis, the hypothesis of spirit communication, postulates the existence of discarnate spirits, and assumes that they are the source of the supernormal knowledge displayed in mediumistic communications. Such communications may be held to be effected by means of telepathy between the discarnate spirit and the mind of the medium, or by an actual possession of the medium's bodily organism by the discarnate spirit.

Most people who are seriously interested in Psychic Research take up one or other of these three attitudes. They either consider that the fact of supernormally acquired knowledge has not been fully established; or they admit the fact and believe that telepathy from the living is sufficient explanation in all cases; or they think telepathy from the living inadequate, and adopt the hypothesis of spirit communication. Belief in telepathy appears to be very lightly adopted by uncritical people. With little or no knowledge of the evidence which points to its being an actual mode of communication between one mind and another, they will readily affirm their conviction that it often occurs. Yet they will reject with scorn the possibility of communication with discarnate spirits. Such people have not grasped the full implications of a belief in telepathy. They have failed to see that the step from the purely naturalistic view of positive science to the acceptance of telepathy is a bigger one than that from the telepathic to the spiritistic interpretation of supernormally acquired knowledge. For, as the late Lord Rayleigh said in his presidential address to the Society for Psychical Research: "Telepathy with the dead would present comparatively little difficulty when it is admitted as regards the living." If a believer in telepathy between the living should object that we know of the existence of the living, but do not know of the continued existence of the dead, it may be pointed out that proof of minds being able to communicate with each other without the intermediation of the body would, in itself, be evidence in favour of the view that human personality may survive bodily death.

The chief task of Psychic Research is to establish beyond cavil the fact of supernormally acquired knowledge, if fact it be, and to discover, if possible, the source from which such knowledge is derived. Hitherto the psychopathologist has been in no way better qualified than other

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people to answer this question. His work in Psychic Research has mainly been confined to the investigation of the states of consciousness in or through which manifestations of supernormally acquired knowledge are alleged to occur. All he has been able to do is to show that mediumistic trance is similar in kind to other trance states, and that the *mechanism* of mediumistic communications is indistinguishable from what is observed in pathological or quasi-pathological states where there is no evidence of supernormal powers. By insisting on these resemblances, and showing how they may be found in all the records of trance phenomena, he helps the student to distinguish those problems which are primarily problems in psychopathology from those that lie within the special province of Psychic Research. Much popular misconception would be avoided if the distinction between the mechanism and the supernormal content of trance communications were clearly kept in mind.

Although, in the past, psychopathology's main contribution to Psychic Research has been confined to the elucidation of the nature of trance states, and the mechanism of trance communications, recent developments in this field raise some hope that it may also shed light on the source of the supernormal content of trance utterance and automatic script. The widespread doubt of scientific men as to whether knowledge is ever supernormally acquired must not be forgotten. The psychologist must ever be on the look-out for natural explanations of all the phenomena of Psychic Research. The assumption that any item of knowledge displayed by a medium has been supernormally acquired is based upon the seeming impossibility of accounting for the presence of that particular item of knowledge in the medium's mind. If this assumption be false, if the knowledge in question has been acquired through the ordinary channels of sense, a thorough exploration of the medium's mind should reveal its source.

The earlier records of multiple personality made little pretence of indicating the source from which the mental content of the secondary states was derived. These secondary states had the appearance of being foreign to the character of the individual, and often seemed so alien to all that was known of his past life and conduct that it was easy for the uncritical to believe that some spirit from another world had for the time being taken possession of his bodily organism. But when psychologists came to investigate cases of this kind they were able to show that secondary selves were nothing but mental dissociations of the same nature as the lesser dissociations displayed in

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common hysterical symptoms, or in ordinary hypnotic experiments. The cause of the dissociation and the particular content of the dissociated states were often, however, very inadequately accounted for, and it is on these two questions that more recent psychopathological work has thrown some light.

The conception given to us by the older school—the conception of dissociation—has been of the greatest service both in psychopathology and in Psychic Research. What promises to be a still more far-reaching conception—the psychoanalytic conception of mental conflict and repression—is the most notable contribution of the new school to our understanding of both normal and abnormal states of the human mind. By means of this conception not only can we understand why dissociation takes place, but we can understand also why dissociation bears upon one section of the mind rather than on another, and why the mental content of a secondary state is just what it is.

The conflict with which the psychoanalyst most frequently has to deal is a conflict between the conscious self and tendencies which are opposed to the cultural or ethical ideals which the self has adopted as its own. The intrusion of these disclaimed tendencies into consciousness is accompanied by mental pain which may be unbearable, and if such an intrusion has taken place, relief from the pain can be obtained only by splitting off the offending tendency, with its painful feeling tone, and repressing it into the unconscious. But the repression of the intruding tendency may carry with it much more than the tendency itself. It may lead to the repression of everything in the mind with which the painful tendency has established associative connections. We may thus have dissociation of a much larger section of consciousness than that upon which the repressing forces primarily bear. The whole of the associated material may form a complex which includes everything appropriate to a certain mood or interest, and the dissociation of such a complex may lead to the formation of a secondary personality.

The significance of psychoanalysis for Psychic Research is not confined to the light it throws on the mechanism of dissociation. It is as an instrument for the investigation of the content of the mind that this new method in psychology is most important. And if the naturalistic interpretation of psychic phenomena be true, if all the knowledge displayed by the controls in mediumistic trance has somehow gained admission into the medium's mind through the ordinary channels of sense, if, indeed, there be no transcendental world, or if human beings have not the power of getting into communication with

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it if such a world there be; then a thorough psychoanalysis of the medium's mind should, in suitable cases, reveal the sources of knowledge which appears to have been acquired in some supernormal way. If, on the other hand, the naturalistic assumption be false, if such knowledge has in truth been supernormally acquired, the inability of the psychoanalyst to trace its origin in the medium's mind would, in itself, be evidence in favour of a supernormal source.

It is not to be supposed that the psychoanalytic method can be applied to any and every medium. If it is true that a person cannot be hypnotised against his will, it is still more certain that he cannot be psychoanalysed against his will. Without the fullest co-operation and the most unflinching honesty on the part of the analysed person psychoanalysis is impossible. Moreover, it is a very painful process, and perhaps nothing but a strong scientific interest in the results, or the desire to be freed from psychoneurotic disabilities, would induce anyone possessing mediumistic powers to submit to a full psychoanalysis.

If the psychopathological explanation of the nature of mediumistic trance is correct we should expect that after such an analysis the medium would be "cured" of her mediumship, so that the ability to go into trance, or to produce automatic writing, would be lost. For one of the functions of psychoanalysis is to effect a new mental synthesis in which are included all those portions of the mind that have been split off and kept out of consciousness by repression. Such a redintegration of the medium's mind would preclude the possibility of going into trance, or of producing automatic script. This result, however, might be brought about even if the supernormal manifestations were truly supernormal, for there may be a necessary connection between dissociated states and the manifestation of supernormal powers.

If the psychoanalytic exploration of a medium's mind is to have the effect of banishing the very phenomena we wish to investigate, or, indeed, if there is any possibility of such a result, it is evident that opportunities for such exploration will be very limited. We cannot expect professional mediums to run the risk of losing the peculiar qualifications through which they earn their living, and we should have to rely on non-professional mediums or automatists who might be willing to sacrifice their unusual gifts in the interests of science. But even if such a person could be found, there are good grounds for doubting whether a successful analysis could be carried through. The mediumistic gift, regarded as a neurosis, is, like other neuroses, a

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compromise between conflicting tendencies which affords some sort of gratification to the patient; and unless there is the inducement of some greater satisfaction being obtained, the unconscious resistances to the analysis may be so great that they cannot be overcome.

We must not, therefore, be too sanguine that in psychoanalysis we have an instrument that will speedily let in light on the dark places of Psychic Research, but we may reasonably hope that in the course of time suitable opportunities for its application in this field may arise. When such an opportunity comes, the results cannot fail to be of interest to students of psychopathology and to those who take an unbiassed attitude towards the problems of Psychic Research. That it will give us further knowledge of the peculiarities of mediumistic trance cannot be doubted, but whether it will, or will not, give us an adequate explanation of the apparently supernormal phenomena associated with trance and its allied states time alone will show.

In the meantime, although there may be no opportunity for subjecting a medium to a full psychoanalysis, some of the technical methods of the psychoanalysts may, with advantage, be made use of in Psychic Research. The most important of these methods is the analysis and interpretation of dreams, and something of interest and value would certainly be learned by analysing the dreams of mediums and automatists. A considerable part of the evidence which supports the belief that knowledge is sometimes supernormally acquired has been derived from so-called telepathic and premonitory dreams. Such dreams are relatively common, and there should, in the future, be many opportunities of subjecting them to psychoanalytic investigation.

Another technical method, the word-association test, introduced into psychoanalysis by Jung, may have wide application in Psychic Research. The procedure is simple, and the test can be applied by anyone of ordinary intelligence, but the interpretation of the results demands considerable expert knowledge. The main outlines of this experimental method are now well known. A series of test-words is called out, one by one, and the person being examined is asked to answer to each, as quickly as possible, with the first word that comes to his mind. The time-intervals between the giving of the stimulus word and the verbal reactions to them are noted, and when the whole list of words has been gone through, the answers are classified according to these time-reactions and various other peculiarities which they may show. Certain stimulus words are then found to have a time-reaction so long, and other important features of the response to them are so

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marked, that it is plain they have struck a mental complex which is of high emotional significance. These stimulus words are therefore spoken of as "complex indicators." When the association test is applied to a number of normal persons it is found that they fall into several groups whose type of reaction is distinctive, so that the reactions of a person belonging to one type could not be mistaken for those of a person belonging to another type.

This method can be used in cases of multiple personality and the reactions of the different personalities compared, but few observations of this kind have been recorded. We should expect, however, that the reactions of the various personalities would have much in common —at least, more than would be found if the personalities had separate bodies and entirely separate histories. When we know more about the reaction types of ordinary secondary personalities we may use the association method to test the claims of mediumistic controls. If they are ever what they purport to be, they should sometimes show reaction types so different from that of the medium that their claim to be extraneous spirits would receive considerable support.

An extension of this use of the word-association test in Psychic Research has been suggested by Mr. Whately Smith. He proposes that we should use this method, not merely to test the claims of controls, but to establish the identity of communicators. Except in the relatively rare examples of "direct control," the evidence in favour of a belief in survival—communications from dead friends—comes to us indirectly through the usual control or controls of the medium. Proof of the identity of the purporting communicator depends on the display, by the control, of knowledge or ability not possessed by the medium, but known to have been possessed by the communicator, and, perhaps, characteristic of him during life. Many people consider that the chief obstacle in the way of accepting such evidence as conclusive is the impossibility of assigning the limits of telepathy from the living, and Mr. Whately Smith thinks some test is needed which shall be as uniquely characteristic of the communicator's mind as a thumb-print, or a set of anthropometrical measurements would be of his body. This, he thinks, may be found in word-association reactions. He therefore suggests that persons still living, who, when they die, would be likely to communicate, should have their associations to a series of test-words recorded and preserved in such a way that they are known only to the person tested. If, after death, they purported to communicate, they should again be asked to react to the same series of test-words.

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If, on comparing these new reactions with those recorded during life, it were found that the two sets of reactions were "identical or unmistakably similar," and different from those of the medium or automatist, the evidence of identity would, he thinks, be very strong.

It is not to be supposed that the actual reaction words would be the same in the two tests, even if the communicator were the person he claimed to be. This would not be likely to happen to any great extent in an association test repeated on a living person after a considerable interval of time. In ordinary association tests it is customary to take the reactions to the same series of words a second time, and this is done immediately, or very soon after going through them for the first time. It is then found that, although most of the original responses can be given, the previous response to certain test-words—those, for example, which had a long reaction-time—is forgotten, and a different answer is given. This difficulty of reproduction is, indeed, one of the characteristics of a "complex indicator." And although we could not expect the reaction words of the communicator in the experiment suggested by Mr. Whately Smith to be identical or unmistakably similar to those recorded during life, it might very well be with the dead as with the living that we should find identity of "type" in the two series of reactions, and also the occurrence, in the second series, of "complex reactions" to the test-words which in the first series had proved to be complex indicators.

Up to the present time no serious examination of a medium or automatist by psychoanalytic methods has been recorded. A superficial application of psychoanalytic doctrine was made by Dr. Amy Tanner and Dr. Stanley Hall in their inquiry into the trance phenomena of Mrs. Piper; but these investigators did not sufficiently discriminate between the importance to be ascribed to the psychological states of the medium and the problem of supernormally acquired knowledge. Most psycho-pathologists will agree with their opinion that the controls in the Piper trance are of the same nature as ordinary secondary personalities; and this is indeed the conclusion come to by Mrs. Sidgwick after an exhaustive examination of the whole of the Piper records. But their estimation of the evidence pointing to the possession by the controls of supernormally acquired knowledge is superficial and unconvincing, being little else than an enumeration of the possible sources of error, and the expression of a belief that one or more of these errors must have occurred in every instance.

There are many critics of Psychic Research who, like these writers,

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deny that knowledge is ever supernormally acquired, yet take much trouble to refute the spiritistic hypothesis. But, if there are no supernormal happenings to be explained, there is no need to refute any hypothesis put forward to explain them. If those who deny the possibility of supernormal acquisition of knowledge are disposed to take any interest in Psychic Research, they should direct their efforts to the discovery of the normal sources of the knowledge which so many serious investigators think must have been acquired in some supernormal way. If all the seemingly supernormal elements in mediumistic communications can be traced to a normal source, both the telepathic hypothesis and the spiritistic hypothesis will become superfluous. The arguments for and against the alternative hypotheses—telepathy from the living, telepathy from the dead, and spirit possession—are of interest only to those who are convinced, or are prepared to believe, that supernormal acquisition of knowledge can and does take place.

Two questions have always to be asked when we are examining the data of Psychic Research: Is this thing true? If so, what is its explanation? Or, in regard to the special problem of mediumistic communication: Has this knowledge been supernormally acquired? If so, what is its source? To both questions psychopathology may have something to say in reply.

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IMMORTALITY AND THE SURVIVAL OF BODILY DEATH AS PHILOSOPHIC PROBLEMS

By C. A. Richardson, M.A.,

Author of *Spiritual Pluralism and Recent Philosophy*

THE direction of man's activities in his incessant endeavour to explore, and hence to control, the environing realm in which his lot is cast, is inevitably, if unconsciously, determined by the more fundamental needs of his mental and bodily nature. Accordingly we find that in the gradual ascent of the race from its humble origin in the dim recesses of the primeval world, the special pursuits to which its energies are most unfailingly devoted vary gradually as progressive development continues and the character and aims of the basic springs of action come to be more clearly realised in the consciousness of the individual.

Chief among these basic impulses is that which aims at conservation. Conservation—yes, but of what? And it is just here that we find in particular that constant shifting of emphasis which is the characteristic mark of progress as it passes onward from the purely material to the more and more purely spiritual. In his primitive state man's chief concern is his body. Nor is this to be wondered at. In the development of conscious experience the individual becomes first of all aware of an external world in which he distinguishes his body as a part, but a part so intimately connected with his feelings and sensations that he inevitably identifies it with himself. For him, self-conservation can only mean the preservation in its active integrity of his body. As a consequence of this, all his energies are devoted to ministering to its needs. He learns in the hard school of experience the laws of its relation to its environment, living and dead, and applies the knowledge thus gained (albeit the application is instinctive, not reflective) to its safe preservation. At this stage, then, his most pressing needs are the needs of the moment, or at most of the near future. Given food and shelter, and he is satisfied—untroubled by, nay, incapable of, visions of a distant morrow.

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This phase, however, is a transient one. With the formation of the tribe, and the new impetus to progress which is consequent upon social co-operation, a distinct change takes place in the mode of consciousness of the individual. He now begins to be aware of others as the subjects of duties and rights in which he partakes.

This realisation of other persons as beings of equal status with himself carries with it as a natural complement the more explicit realisation of self as an entity distinct from, and at least to that extent transcending, the body with which it is associated. In other words, social consciousness and self-consciousness develop *pari passu*. But the development is very gradual. Only after the lapse of ages does man come to speak of his "soul," envisaging the latter as a precious possession ultimately independent of, though temporarily burdened with, his body. Note that at first the soul is still regarded as an object possessed, and in its preservation now and hereafter the deepest hopes, the gravest fears, are centred. This notion of the soul as a possession lingers on to this day in common speech, if not in thought. Yet it is evident that the only reason we can have for attaching value to the conservation in existence of the soul is that it is identical with the individual himself—it is not a possession of the self, but a mere synonym for it. I am not interested to know whether some shadowy replica of me will survive the death of my body. I want to know whether I, my very self, will survive.

There is a third stage in the development of the desire for con servation. It is, however, attained by very few. They are those who feel that the fate of the individual matters little provided there is that in the constitution of the universe which ensures the ultimate triumph of the Good. The individual may be annihilated, or may perchance be absorbed into the world-spirit at the cost of his individuality—it matters not if only his contribution to the working-out of that final purpose be preserved. In such creeds, the conservation of the individual is replaced by the conservation of value. Yet one cannot help feeling that the progressive achievement of this ultimate Good would, if unappreciated by those in the result of whose labours it alone consists, constitute but a barren triumph.

Such a selfless view of reality as that just indicated is, however, not possible to the vast majority of people. For them the great question which calls most urgently for answer is whether they and their friends and loved ones will survive the incident we call "death," as individual personalities recognisable as those who formerly trod this earth. The

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urgency from the human point of view of this problem of "personal immortality," as it is frequently called, is reflected in the philosophic thought of all ages. In philosophy it takes in the first place the form of a search for something permanent, whatever it may be, in that ceaseless changeful flux of transient elements which is apparently the main characteristic of the world as we know it. The problem of Change and Permanence, their relation and reconciliation, has always been the central one for philosophy. It may be soluble, but even so it is doubtful whether the solution is capable of explicit formulation in words, for the greater part of the difficulty itself arises from the inadequacy of conceptual thought for dealing with the facts we are here concerned with. In any case, on this main problem the permanence of the individual self hangs as a logically subsidiary issue; but the best way to the solution of the former may be found to lie through the consideration of the latter.

At this point, however, a note of warning must be sounded. Just because of the very urgency of the matter, and of the tremendous insistence with which it ever and anon occupies the centre of human thought, it is necessary to take especial care lest desire outstrip reason and our conclusions be rendered so far worthless. The colouring of belief by desire, and the prejudicial bias which it gives, even though unconsciously, to our estimation of the evidence provided by reason and by empirical fact, have hitherto militated not only against the provision of a purely rational solution of the difficulty, but also against a precise logical formulation of the problem itself. Accordingly it must be our primary concern to detach ourselves as far as we may from the desires natural to us, and to take up the whole question *ab initio* from a dispassionate point of view. We shall find that in this case, as in many others, there is more than one distinct issue involved, and it will be part of our task to disentangle these issues. It will appear that the general problem of Immortality is on an entirely different footing from the problem of survival of bodily death, although the two are hopelessly confused in the minds of many people. The first, in so far as it is capable of solution at all, must be soluble on general grounds. The second, dealing as it does with particular facts of existence, can only be settled conclusively by a consideration of empirical evidence. With regard to the first, then, we must endeavour to formulate the problem precisely, to determine to what extent it is capable of being solved, and to elucidate the general principles on which the solution is based. With regard to the second, we have to consider the facts

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alleged as providing evidence of survival, and to obtain a criterion by means of which we may try whether they are actually evidential in the manner claimed.

All knowledge is based on the immediate experience of the individual. This is true not only of that vast confused mass which constitutes the instrument of practical "common sense" for dealing with the ordinary situations of life, but also of those more systematised bodies of knowledge which make up the accumulated fund of the special sciences. The principles of astronomy, for example, are simply generalisations obtained by abstraction from the direct observations of numerous observers. It follows that if we wish to investigate a problem from its very origin by avoiding any of the assumptions made in current opinion on the subject, we must turn in the first place to a consideration of the nature of the individual experience.

The growth of experience both in the individual and in the race falls naturally into three well-defined stages—sense-perception, imagination, and conception. The first is the basis of all; from it the second immediately derives; but in the development of the third there is involved in addition a social factor. Very little reflection is required to make it clear that in all experience two main factors are involved. There is the "I" who perceives, thinks, wills, imagines, and the content which makes up what is perceived, thought, willed, imagined. These are termed respectively the "subject" and the "object" of experience. We say that the object "is presented to" the subject, who discriminates various parts of it by the movements of attention. But although we may in reflection distinguish between these two factors, actually they are so intimately dependent the one on the other as to be incapable of separate existence. For a subject to whom nothing at all was presented could no more exist than could a thought without a thinker. The very existence of the subject consists in his experience, that is in the presentation of objects to which he attends; while the being of the objects thus cognised equally depends, at least in part, on the fact of their presentation to a subject.[1] Subject and object are complementary factors constituting in their inseparable existence the unity which we call the individual experience.

Perhaps the most important characteristic of sense-experience, and

[1] This view of the partial dependence of perceived objects on the percipient is opposed by the Neo-realists. For a criticism of their objections I may perhaps be permitted to refer to my book on *Spiritual Pluralism and Recent Philosophy*, pp. 92-103.

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the one having the most far-reaching philosophic consequences, is its private and incommunicable nature. Our sensations are peculiarly our own. Common sense generally refers them to entities existing independently of any particular percipient, of which entities they are the effects on us. As to the validity of such a belief, more must be said shortly; but in any case the privacy of the sensation or "sense-datum" (to give it a more satisfactory name) to the particular individual who perceives it must be admitted. From the fact of this privacy the incommunicability of the nature of sense-data follows as an immediate consequence. To realise this clearly we need only consider how impossible it would be, for example, to explain to a man blind from birth exactly what we mean by (say) "red." And it equally follows that we have no guarantee whatever that the appearance to one person of what he calls "red" is the same as the appearance to another person of what he also calls "red." We cannot communicate our sense-experience, but the race has evolved a substitute through the medium of language and gesture. This substitute consists in the establishment of a *correspondence* between particular sense-data of different individuals, and the fact of this correspondence is signified by the adoption of a common name as the symbol of that group of sense-data. But it must not be forgotten that the establishment of this correspondence is for each individual a fact *within his own experience*. The participation of other individuals in the knowledge of this correspondence is not for him an immediately given fact, but an *inference* from what is immediately given, namely the words and gestures forming part of the bodily manifestations of these other individuals.

Is such an inference justified? This is really part of the larger question to which reference was made above, namely: Can we infer from our sense-data the existence outside our own private experience of entities independent of us of which these sense-data are in some sense or other the "effects" or "manifestations"? In particular, do other people exist?

Now, *prima facie*, the objects of individual experience give evidence of the existence of nothing beyond themselves, and certain schools of thought maintain that this is indeed true, and that the further postulation of entities in addition to sense-data, as the ground of those data, carries with it assumptions that cannot be logically justified. Such a view, if pushed to extremes, leads inevitably to solipsism, a most uninteresting and infertile result. But there are probably sound, though perhaps not absolutely conclusive, metaphysical reasons which justify

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an individual in postulating the existence of other entities besides himself and his sense-data, and at any rate this postulation is irresistible in practice. The next step therefore lies in the selection of an hypothesis as to the nature of these entities of which we may call sense-data the "appearance"; and it will be apparent in the sequel that the result of this selection has a supremely important bearing on the interpretation of the facts and theories of psychical research.

There are four possibilities as to the nature of the entities in question. They may be (1) partly material and partly spiritual, or (2) wholly material, or (3) wholly spiritual, or (4) neither material nor spiritual. In the last case, however, they would be quite unknowable to us, so that recourse should be had to such an hypothesis only if all others prove unsatisfactory.

In considering the first two possibilities we are faced at once by a difficulty, namely as to the interpretation of the word "material." Philosophic materialism regards matter as a substance atomic in nature, built up from elementary indivisible parts (formerly "atoms," now "electrons"), having certain specific properties of which the most characteristic is inertia. These unitary entities are not directly perceptible, but by the forces they exert and the radiations they originate they produce physiological changes in the human body which give rise to sensation. Everything, mind included, is thus regarded as the product of various combinations of these material units. In this way a curious inversion, in thought, of the real state of affairs has been produced. Whereas in actual experience the things most real and concrete for us are our sense-data, in materialistic theory the actualities are the atoms and electrons, sense-data being mere unsubstantial "epiphenomena" (to use a term much in favour with materialists) observed to accompany certain peculiarly complex aggregates of atoms (namely higher organisms) in their interaction with other matter. The whole argument is of course a gigantic fallacy. For what exactly are these "atoms," "electrons," "material bodies," etc.? "The entities referred to in the bodies of propositions which constitute physical and chemical science," must be the reply of the materialist—and this exposes the fallacy at once. For the data of natural science consist in the sense-data of particular individuals, and in nothing else whatever; while every verification of a scientific generalisation consists of necessity in an appeal to the occurrence of certain sense-data in the experience of one or more particular individuals. It follows at once that the propositions of natural science, however their ultimate

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meaning be disguised, must necessarily be statements about sense-data and about nothing else; they are, in fact, tremendously condensed assertions about the relations of co-existence and succession which subsist between sense-data, and the terms employed in them (such as "electron") are merely artificial concepts, made up of logical constructions of sense-data, which serve the purpose of reducing the propositions to a manageable brevity. The "atoms" and so on of the materialist are thus *constructions* of sense-data and *not inferences* from them.[1] Hence those entities which constitute the ground of sense-data are, whatever they may be, utterly unlike the inert particles of which the materialist speaks, for even when he speaks of such particles he is really only speaking about sense-data after all, and not about the ground of such data.

The above considerations rule out the first two of the possible hypotheses as to the ground of sense-data, for not only do they dispose of materialism as a serious metaphysical theory, but they also render it clear that ultimately we must replace the abstract and artificial dualism of mind and matter, which has been found useful in formulating conveniently some of the results of science, by that duality of subject and object which is comprised in the unity of the individual experience.[2] This duality in unity is the concrete actuality from which mind and matter, as ordinarily conceived, are abstractions.

We are left, then, with the hypothesis that the ground of our sense-data is spiritual, that is, constituted by other subjects of experience, for by "spirit" we can only mean "subject of experience." On this theory the object of experience is regarded as the appearance to the subject of other subjects, and the changes which take place therein as the product of his interaction with the latter. Hence the privacy of his experience does not cut him off from all knowledge of the reality outside that experience, for he is enabled to interpret it as the manifestation of other individuals *essentially* akin in nature to himself. These individuals must, however, be regarded as varying indefinitely in degree of development. At the far end of the scale we have inorganic matter, which may be considered as the appearance to us of individuals of extremely inferior mentality whose actions (as with all inferior types of mind) are practically entirely habitual in type and

[1] For a conclusive demonstration of this, *cf.* Bertrand Russell, *Our Knowledge of the External World*, especially Lectures III and IV.

[2] For a detailed exposition of this point, *cf.* James Ward, *Naturalism and Agnosticism*, 3rd ed., Vol II., part IV, especially pp. 110 ff.

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lacking in any observable spontaneity. We are thus enabled to make broad generalisations as to their behaviour in given circumstances, and it is in such generalisations that the so-called "Laws of Nature" consist. This tendency to the formation of fixed habits is an important characteristic of the individual mind or subject, but it is no less the case, on the other hand, that the individual is capable of learning by experience, and hence of indefinite progressive development. In this fact the key to the riddle of Evolution is to be sought.

On the theory outlined above, then, reality is regarded as constituted by a plurality of spiritual agents, the experience of each consisting in his interaction with the others. Such a theory, however, is incomplete, for it gives no account of the ground or essential condition of this interaction. A *mere* plurality of separate individuals cannot contain within itself the ground of any concrete relationship between those individuals. Interaction between them seems, in virtue of their isolated individuality, to be inconceivable. It is therefore necessary to postulate in addition a single universal entity immanent in the many; and in this way a satisfactory interpretation is obtained of the two fundamental and equally important aspects of reality, its unity and its plurality.

It is no part of our purpose here to justify completely this metaphysical hypothesis. The present writer has attempted to do that elsewhere.[1] But we may adopt it henceforth as a working theory in attacking the particular problems with which we are now concerned. Yet it is perhaps worth while to call attention to one important fact which may be regarded as providing corroborative evidence of the truth of the theory. For it would follow from the latter that in the nature of the spiritual agents we have mentioned, and in man in particular, there should be found elements both of individuality and of universality. Now it is certainly a fact that a man is a remarkable mixture of the individual and the universal. He shares with his fellowmen, and, indeed, with all living beings, certain general types of activity, but within these types there is indefinite variety of detail. And again, his emotional impulses are partly egoistic, partly altruistic; while with an irresistible inclination to assert his own individuality he combines an equally irresistible inclination to social co-operation. His life is thus essentially the expression of his nature as an unique being who yet shares vitally in the common existence of the Universe

[1] In *Spiritual Pluralism and Recent Philosophy.*

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as a whole ; and although if we look lower in the scale of life this blend of individual and universal may not at first sight be so apparent as in man, yet the deeper insight afforded by a consideration of the course of evolutionary development from the lowest to the highest renders it abundantly plain that that development is itself the expression of the combination of individual and universal tendencies in the activity of numberless agents. Everywhere we find independence merged inextricably with interdependence, and the uniqueness of the individual a necessity to the whole of which he is a part, while he yet depends on the whole for his very existence as an individual.

It now becomes necessary for the furtherance of our investigation to determine the exact status of space and time in reality, in the light of the hypothesis we have been considering. Now we habitually speak of space and time as independent existents somewhat analogous to receptacles, *in* which material objects have their being. But it is clear that we cannot accept such a conception uncritically, and this more especially because we found that material objects themselves turn out to be very different in nature from what the deliverances of ordinary thought would lead us to expect. The concepts of physical science, such as "atom" and "electron," no less than those of everyday life, such as "table" and "chair," involve in fact nothing more than the private sense-data of various individuals. They consist in certain groups or classes of sense-data, and do not refer to entities additional to the latter, for if they did they would be so far invalid, seeing that all empirical observation and verification consists, as was previously pointed out, in the perception of sense-data and of nothing else. We must therefore conclude that the concepts of space and time call for very careful investigation, and that this investigation can be conducted satisfactorily only by a consideration of the manner in which these concepts have developed in the experience of the individual.

In space as ordinarily *conceived* we find a certain quality and a certain type of relation. The former is extension, the latter is made up of such relations as "to the right of," "to the left of," "above," "below," "before," "behind." But qualities must belong to something, and relations can only be actual if they subsist between definite entities. Hence the concept of space as an independent existent is beset with contradictions, for we seem left with nothing but an unattached quality and a mere network of relations without concrete relata. The difficulty is solved, however, so soon as we realise that conception grows out of perception, and hence that the concept of space must be

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based on the perception of sense-data. For the latter provide the necessary concrete element. To fix our ideas, let us confine our attention for the moment to visual sense-data. We find that, among other qualities, they are characterised by a particular one which may be described as "size" or "voluminousness," and to which psychologists give the name of "extensity." These more or less extensive patches of colour which constitute visual sense-data are also observed to stand to one another in a certain type of relationship among other types. This comprises the relations which we name respectively "to the right of," "to the left of," and so on. It is therefore evident that the term "spatial" is *merely a name*, and nothing more, which we give to this particular quality, and this particular type of relation, of sense-data. The sense-data are the concrete actualities. Apart from them, the quality and the relations are sheer abstractions, and space is itself an abstraction, for it is essentially conditioned by the very things it is used to describe. We have, not an independent empty space *in* which objects have their being, but simply certain entities (namely sense-data) possessing a certain peculiar quality, and standing in certain peculiar relations to one another, to which we arbitrarily give the name "spatial." Thus, although we shall continue to use the phrase "in space" for convenience, it must not be supposed to carry any other meaning than that the entities in reference to which it is used are objects having "spatial" characteristics.

Tactual sense-data possess characteristics akin to those of visual data. They have a certain massiveness or extensity, and they stand in certain positional relations. The latter are observed by movements of the body and limbs, just as visual spatial relations are observed by movements of the eye. The perception of tactual space is independent of the perception of visual space, so that each individual subject possesses, as it were, two private spaces, one of sight, the other of touch.[1] A one-one correspondence may, however, be established between the elements of one space and those of the other by means of various movements, so that the subject comes to think of a single space of which sight-space and touch-space are "aspects." But he is apt to forget that what he calls "aspects" are really the given concrete actualities, whereas the supposed single space is simply a logical construction.

This limitation to two spaces is a consequence of physiological structure. Were our ears as mobile as our eyes, we should have a well-developed perception of an auditory space.

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In a somewhat similar way, the conception of a single, all-embracing, "public" space, as it may be called, arises from the perception of the particular private spaces of individuals, the private spaces being regarded as "aspects" of public space. The individual subject arrives at this conception of a single space common to all by intercourse with other subjects; for he finds that by means of this intercourse he is enabled to establish a one-one correspondence between the elements of his own space and the elements in the space of any other subject. To each element in a given private space there corresponds one and only one element in every other private space, and consequently one and only one element in public space. But it is of the first importance to remember that the private spaces are the concrete realities, public space being an abstract conceptual construction. Moreover, it should be noted that the nature of the relation between two elements in a particular private space is quite different from the nature of the relation between two elements each of which is in a different private space. The former is the type of relation termed "spatial"; the latter consists merely in a one-one correspondence; and in connection with the establishment of a correspondence of this kind, it should not be forgotten that it is for each individual a fact entirely within his own experience. It is based on the language and gestures of others, and these form part of his object of experience.

Mutatis mutandis, what has been said of space is true also of time. The concept of a public or universal time is built up from the private times of individual perceptual experience. The private times, again, are simply based on the possession by sense-data of certain special characteristics to which we give the name "temporal." These temporal features are the quality of duration (*i.e.*, persistence as sensibly unchanged elements), and the relations of succession—"before" and "after." Hence, as before, the actualities are sense-data possessing special characteristics. The concept of a time *in* which material bodies exist is merely an abstraction from this, and consequently the phrase "in time" ultimately carries no further meaning than that the entities to which it refers possess temporal characteristics. As in the case of space, to each element in a given private time there corresponds one and only one element in every other private time and in public time; and again, it is important to notice that the relation between elements in different private times consisting, as it does, simply in this correspondence, is quite unlike the relation holding between elements in the same private time.

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Summing up, then,we may say that the space and time of ordinary conceptual thought are logical constructions arrived at by a continued process of generalisation and abstraction from the nature of what are the given concrete entities, namely the particular sense-data of particular individuals. In experience as it actually is, there is no separation of the spatial and temporal aspects of presented objects, nor can the separation in reflection of these objects from the subject to whom they are presented be anything but artificial. In view of this, it is noteworthy that the results of certain empirical observations have recently compelled a far-reaching modification in the outlook of physical science. For most purposes the latter can accept the concepts with which it works as if they accurately represented fact, and can work out its theories in terms of a space, time, and matter independent of any particular observer. But in the end it must take account of the fact that these concepts are but abstractions from private experiences relative to particular individual subjects, spatial and temporal features being themselves partial aspects of sense-data in which they are actually confluent. The realisation, as the result of observation, of the relativity of phenomena to the particular "point of view" (*i.e.*, to the particular percipient) and of the confluence of space and time, has led to the formulation of the famous principles of relativity and of equivalence, with consequences marking an epoch in the history of science.

From the foregoing analysis of the nature of space and time, it is evident that spatial and temporal ideas are applicable only to sense-data, that is to elements *within*, and forming part of, that presented whole which constitutes the object of the individual experience. What, then, are we to say of this object considered as a whole ? Is it a spatio-temporal entity ? Obviously it is not. For consider, in the first place, the question of space. The spatial character of sense-data has been found to consist in a combination of their quality of extensity and their positional relations to one another. Both the quality and the relations are essential elements in spatial character. Now if we consider the object of experience *as a whole*, we can see at once not only that the idea of extensity is not strictly significant of it (for a brief reflection shows that it cannot be considered to be either bounded or unbounded), but also that there are no entities to which it is positionally related in the way that the sense-data within it are related to one another. Its relations to the objects of other individual experience are, as we have seen, not spatial, whatever else they may be. Precisely

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similar considerations hold from the point of view of time, so that combining the two aspects (the spatial and the temporal) as they are actually combined in sense-data, it follows at once that although the parts of an object of experience are spatio-temporal entities, it is not itself a spatio-temporal entity. Spatial and temporal concepts are therefore quite inapplicable to it, and this is a most important consideration for our present purpose.

If, on the other hand, we shift our attention to the subject of experience, we discover still more cogent reasons for concluding that that subject can in no sense be regarded as a spatio-temporal entity. For not only can we apply in this case an argument analogous to that set forth above in connection with the object considered as a whole—we can also see that the subject does not even consist of parts possessing spatial and temporal features. It is an essential characteristic of the subject that he is *not* a whole of parts, but an *indivisible unitary entity*. To realise this clearly, one need only consider how absurd it would be to make such statements as: "This part of myself is before that part," or "That part is to the right of the other part."

The subject, therefore, is not in space or time. At first sight this conclusion might appear to be contradicted by the fact that we habitually speak and think as if we were in space and time. But it turns out on examination that the spatial and temporal references in all such judgments really apply exclusively to parts of the object of experience. For example, suppose I say, "I am going to London on Saturday." Ultimately this means nothing more than "There are within my total object of experience certain parts (the sense-data which for me constitute "London") having certain spatial and temporal features (the latter constituting "on Saturday")." I do not myself enter into this spatio-temporal complex as a constituent (although I *perceive* it), but my body does; and with regard to the latter we must not forget that although the subject is not in space or time, yet the manifestations to other individuals of his active existence *are* in space and time, for they constitute parts of the objects of experience of these other individuals.

The preceding discussion evidently has extremely important bearings on the problem of immortality. For the problem of immortality is largely the problem of the nature of time. Stated in ordinary language it simply asks, "Do I exist for ever?" Now the whole difficulty clearly centres round the phrase "for ever"—a phrase containing a temporal implication. But it has been shown

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above that a subject of experience is not a temporal entity, so that the conjunction of "I" and "for ever" in the question, "Do I exist for ever?" is strictly meaningless. Hence, if there is a problem of immortality at all (and perhaps, in one sense, there is not), we must try to find a more significant statement of it.

Now our existence consists in our experience, and the latter consists in the presentation of an object to which we attend. Thus we might shift the temporal reference from the subjective to the objective side of experience, and accordingly ask: "Does my object of experience continue for ever, or does it come to an end?" This change, however, though it may carry us a step in the right direction, is not in itself sufficient, for the object of experience in its completeness is not a temporal entity, so that temporal ideas such as "begin," "continue," "end," are not applicable to it. In fact, the only entities to which they *are* applicable are elements *within* the object of experience. Therefore we must state our problem in terms of the latter. It then becomes: "Is there a time when no more such elements will be presented to me?" What, then, is the time referred to? It cannot be simply my private time, for this is conditioned by my sense-data and has no existence apart from them, so that the question in the last form would then be equivalent to: "Is there a time for me, when there is no time for me?" which is obviously quite meaningless. It follows at once from this that the problem of immortality has no real concrete significance for the individual. His annihilation could not be a fact for him; nor, indeed, could it be a fact for anyone else, for he himself does not enter into the experience of others but only his objective manifestation. The cessation of the latter no more implies his annihilation as a logically conclusive result than the normal disappearance of another person from our field of view implies his annihilation. It is true that in the latter case the entire body of the person, as well as his voice and gestures, cease to be apparent, whereas in the former case the body remains although the voice and gestures cease. This last fact does not, however, carry us any further from a purely logical point of view.

As a matter of philosophical interest, it is possible to give a logical significance to the question we have been discussing by putting it in terms of public time. Since the latter is constructed by correlating the individual private times, the problem finally becomes: "Are there future elements in the experiences of other individuals to which there are no corresponding elements in my own experience?" This is the

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bare residuum of the general problem of immortality brought to its ultimate logical terms. The problem as thus stated is perfectly significant but quite insoluble, for there would be no means of demonstrating the breakdown in the correlation even if it existed, seeing that for each individual the establishment of a correlation consists, as was previously pointed out, entirely of happenings which take place within his own experience. He has no means of getting at the incommunicable experiences of others. The insolubility of the problem is not, however, of practical importance in view of its entire lack of concrete significance for the individual.

We may now pass on to the second of the problems we set out to investigate, namely, future life as a survival of bodily death. It is evident that the result of our consideration of the general problem of immortality throws no light on the question of survival. The former depends on the general nature of experience; the latter is concerned with certain events within experience.

Let us try to give a precise statement to the problem of survival. The bodily death of an individual consists for another person in a certain complex of sense-data in the latter's object of experience. Such a complex is far from being unique even in the experience of one observer, for the majority of people are witnesses of more than one death. For the deceased himself, however, his bodily death must be constituted by a complex of presented elements very different from those of the observers, a complex, indeed, which is probably quite unique in his experience. Survival of death, then, so far as he is concerned, can only mean the existence in his object of experience of presentations standing to the complex constituting for him bodily death, in the relation "after." The problem can therefore be stated significantly in terms of the private time of the individual concerned, as follows: "Are there in the succession of elements which is the private time-series of any given individual, elements which are successors of those constituting the complex which is bodily death? and further, are such elements correlated (as regards time) in the usual way with elements in the experiences of others which are successors of the complexes which constituted for these others the death of the given individual?"

Clearly, then, the statement of the problem in this form brings out the fact that it is concerned solely with particular events *within* the experience of particular individuals. Hence it cannot be solved on general grounds alone, but only by appeal to empirical evidence. So

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far as we alone are concerned, while we yet remain on this side of the veil, such empirical evidence can only consist in communications from the other side. Granted that the results of psychical research are such as to warrant the conclusion that *apparent* communications, at any rate, exist, we have then to classify the types under which they are found to occur, to attempt to establish a philosophical criterion by which their evidentiality may be judged, and finally to determine the limits of applicability of this criterion.

Phenomena which may be seriously considered as affording possible evidence of survival fall mainly into two classes. These are: (1) Apparitions, (2) Automatic speech and writing. Each of these divides into two sub-classes. As regards the first class, there are those apparitions which seem to be quite purposeless, and those which seem to be endeavouring to communicate, or to give evidence of identity, by gesture or otherwise. As regards the second class, an important distinction must be made between cases when the automatic writer or speaker is in a trance, and cases when he is not entranced.

A brief consideration is sufficient to show that the purposeless type of apparition affords no evidence of survival. In such cases the phantasm is observed, generally by more than one person and on more than one occasion, to go through a certain routine procedure with no apparent end in view beyond itself. Frequently the phantasm is recognisable, showing that it is connected in some way with the individual who was formerly on earth, but it does not follow that at the time [1] the phantasm is observed the individual, of whom it is an appearance, is actually trying to bring about such an effect, and this for the following reasons: Action at a distance in space is a commonplace in everyday life, so far as the material world is concerned; it is, indeed, the invariable rule according to the evidence of empirical observation. From material bodies (including the human organism) radiation is regarded as being continuously propagated in all directions, so that the effects of every happening in such a body travel outwards in space to an indefinite distance. There is a principle analogous to this in the world of mind. For it appears that individual minds are able to influence one another when their material manifestations (namely their bodily appearances) are at a distance in space from one

[1] Hereinafter the terms "space" and "time," if not qualified, will be used as meaning public space and public time respectively. It will be remembered that all statements about the latter can be interpreted in terms of the private spaces and times of particular individuals.

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another, which, in some of the cases recorded, is very considerable. The evidence for this process of "telepathy," as it is called, is at least as great as that for many accepted facts in natural science. It must not be supposed, however, that telepathy depends on a form of material radiation, for the analogy between the two processes is far from close. In particular, telepathy, if it depends on spatial distance at all, is connected with it in a manner altogether different from that in which radiation and space are connected. The quantitative effect of radiation diminishes very rapidly as the distance from the source increases, in accordance with the inverse square law. But this is not the case with telepathy. Indeed, the existence of telepathy and its comparative independence of space can be inferred from our hypothesis as to the nature of reality. In a plurality of spirits linked by the immanence in all of a single concrete entity, the actions of each (whether of thought, word, or deed) must inevitably influence all the others in some degree. This fact is the basis of telepathy. Moreover, since, as we have seen, spirits or subjects of experience are not spatial entities, telepathy is so far independent of space, though its effects may be manifested in space. We have, in fact, a non-spatial agent whose act is manifested in one way by a spatial series of events connected by relations of distance. Thus every act of every individual subject is partly manifested in the phenomenal world by a string of events propagated in all directions through space, and of indefinite extent.

With suitable modifications, a precisely analogous argument applies to events distant from one another in time. In the material world, just as the effects of events are propagated through space, so are their effects also propagated through time in a continuous sequence. The effects of every happening in the phenomenal world march onward through time in an indefinite succession. Similarly, just as the individual mind can produce effects in space at a distance from its bodily manifestation, so may we suppose that it can also produce effects which are distant in time. This ubiquity, as it were, in space and time of the phenomenal consequences of subjective acts becomes clearer when we remember that the subject is not in himself a spatio-temporal entity, so that each of his acts so far as it is manifested in space and time might be expected to appear not merely as phenomena at special isolated times and places, but as a group of events "covering" the indefinite extent of the space-time continuum in the sense that in every region of space at *some* time and at every epoch of time in *some* place there are phenomena which are the manifestation of the

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given subjective act. In general, the majority of these phenomena may not be perceived, partly for lack of suitably " placed " observers, partly, no doubt, for other reasons of the nature of which we are at present ignorant. But in particular cases circumstances may arise favourable to the production and the perception of unusual effects, and apparitions such as we are considering may quite probably be among cases of this kind. At all events, it is clear that we have very little ground for directly connecting the apparition as a part of the observer's object of experience with anything occurring at the correlated time in the experience of the individual (assuming his survival) of whom the apparition is a manifestation; and consequently the apparition affords no presumptive evidence of the survival of that individual.

Coming to cases of the second type of apparition, namely, those in which attempts at communication seem to be involved, we see that the presence of this additional factor will not allow us to apply the previous argument, at least without very considerable modifications. Logically, perhaps, we are still on the same ground, for we might regard even these apparitions as effects at a distance in time, and not of necessity directly correlated with anything present in the mind of the manifested individual at the time when the apparition is observed. We can hardly look on the matter in this light, however, from a practical point of view, for if we push the argument to its ultimate logical conclusion we should be compelled to regard the normal bodily manifestations to us of other people with the same suspicion. We are, in fact, led back to a difficulty mentioned earlier in this paper, namely, that since we can only observe events taking place within our own private experience we have no strictly logical grounds for making inferences about things outside that experience. In practice, however, we are compelled to assume that other subjects of experience exist and that their experiences are really correlated with ours in the way they appear to be, judging from their bodily manifestations such as gesture and speech which form parts of our own object of experience. But if we make these assumptions in normal cases, we must extend them also to the unusual case of apparitions.

The evidence for survival provided by communicating apparitions is therefore the same in kind as that given by ordinary bodily appearances for the existence of other people in this earth life. There is, nevertheless, one important difference between the two cases. In ordinary life the active existence of other people is manifested in two

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ways: (1) Directly, by sense-data, mainly of sight, sound, and touch; (2) Indirectly or symbolically, by speech and gesture through the medium of which the thoughts of others are communicated to us and incidentally the strongest evidence, perhaps, of their identity is afforded. As regards apparitions, the second type of evidence is present, differing only in degree from that occurring in ordinary life, but while the first type is also present to a certain extent there are in general important elements which are absent from it. Between the sense-data of sight, sound, and touch, which constitute the bodily appearance of an individual, there exist certain spatial correlations. In the case of apparitions there is generally an important breakdown in these correlations, notably in the case of touch. Visible apparitions of the communicating type are frequently audible, but there is little or no evidence for their being tangible; and this is the main reason why we tend to regard them as in some way fictitious, for we associate tangibility in particular with reality, owing to the muscular sensations of effort opposed which are produced by the tangible resistance of objects. But there is no logical reason for regarding tangibility as more concrete than visibility and audibility, and we may therefore conclude that the evidence of apparitions differs from that of ordinary bodily appearances in quantity only, and not in quality.

We have now to consider the second type of evidence for survival, namely, that furnished by automatic speaking and writing. In this kind of evidence we are limited, when attempting to fix the identity of the communicator (if there is one, other than the medium), to interpretation of the messages received; there is no direct evidence of identity as in the case of a recognisable apparition, except in so far as handwriting or intonation may in some cases be recognisable.

When people are discussing matters of this kind, they often make use of the phrase "the subconscious self," generally attaching a very vague meaning to that term. It is only necessary to remember, however, that the subconscious self is *not* a "part" of the subject of experience. The latter is an indivisible unity, and not a whole of parts. On the other hand, the subconscious self is simply a certain complex of ideas which remain for the most part below the threshold of consciousness (hence the name "subconscious"). The term "self" is used in connection with this complex because it forms part of the individual's conception of himself as an active participator in the business of life. Hence, when we say that anything is "due to the subconscious self," we can only mean that it is due to a rising of this

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complex of ideas above the threshold of consciousness ; or, in a wider, but not strictly accurate, use of the phrase, that it is due to the rising of certain subconscious ideas (of *whatever* kind) into full consciousness.

The most important class (from the point of view of evidentiality) of motor automatisms is automatic writing when the medium is not entranced. Here it is possible for the medium to carry on an original line of thought or conversation, while his hand writes down the words symbolising a totally different line of original thought. Now it is possible for the same subject to perform two actions at once, one original and the other automatic or habitual, and to be quite unconscious of the latter. It is also possible for some subjects to carry on two or more original lines of thought or action, more or less simultaneously, by rapid oscillations of attention ; but in this case the subject is fully conscious of all his actions. It is not, however, possible for a subject to carry on two or more *original* lines of thought absolutely simultaneously and yet to be *fully conscious of one and quite unconscious of the others*. We must therefore conclude that many of the products of automatic writing are due to *subjects other than the medium*. Whether these subjects are really spirits inhabiting the next world, or whether they are other people in this world producing effects by such processes as telepathy, is a question that can only be settled for each particular case on its own merits. But it may be remarked that many of the communications received strain the hypothesis of telepathy from the living to an impossible extent. There might still, of course, be the logical alternative of regarding these communications as effects distant in time ; but practically, we cannot adopt this explanation for reasons pointed out above in connection with communicating apparitions. Moreover, these reasons are here strongly reinforced by the continuity and coherence of much of the script produced by automatic writers, even when not entranced.

The evidence provided by trance writings and speech is more valuable in general as corroborative of the evidence obtained from mediums who are not entranced than as information of intrinsic worth. For in the case of an entranced medium it is much more difficult to rule out the possible agency of the subconscious self. The fact that the medium afterwards remembers nothing of the happenings during trance is no argument against the possible action of the subconscious self, for in the case of the hypnotic trance a like oblivion nearly always occurs, although during the trance the patient is quite conscious of his actions. Hence in experiments on trance communications

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it is necessary to resort to special devices to rule out such agencies as the subconscious self and telepathy from the living. The best known and most efficient method of accomplishing this is that termed "cross-correspondence," [1] and when this is adopted the results obtained are extremely valuable, for practically every objection is countered in advance except those depending on special philosophical arguments (such as "action at a distance in time") of the kind previously considered. In any case, there is little doubt that where genuine spiritual agencies are at work, the method employed by the "control" in using the medium's bodily organism is essentially different according as the medium is entranced or not.[2]

Finally, in deciding as to the presence of a spirit in such cases, and as to the genuineness of the identity claimed, we can only apply the criterion we have already determined. That is, we have here signs essentially like those by which we ordinarily recognise the presence and identity of a living person. The only difference is one of degree, consisting in the absence of certain characteristic signs. In motor automatism the identifying marks of sight and touch are absent; we have only such things as characteristic modes of expression; description of past events known only to the person whom the spirit claims to be, and to certain of the observers (not including the medium); and, perhaps, recognisable handwriting or intonation. The case is analogous in many ways to telephonic communication between two people. We may obtain the same sort of evidence of identity as we have of the identity of a person speaking to us on the telephone. The results obtained by applying our criterion will evidently vary much with particular cases; but if we are inclined to be sceptical, we must try not to forget that our criticisms apply in general in just the same sort of way to observations of the normal bodily manifestations of living people as to the more or less abnormal manifestations on which we are passing judgment.

We may briefly sum up our discussion of immortality and survival as follows: The problem of immortality depends on the essential structure of reality (or at least of that part of reality which includes subjects of experience), and can therefore only be dealt with by investigating the general nature of experience. It then turns out that when a precise logical statement is given to the problem it is incapable

[1] *Cf.* Sir W. F. Barrett's book, *Psychical Research*, pp. 228 ff.

[2] The writer has discussed this point fully elsewhere. *Cf. Spiritual Pluralism and Recent Philosophy*, pp. 311 ff.

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of solution, but this fact has only theoretical importance, for it follows from the statement arrived at that the problem has no concrete significance for the individual. The question of survival, on the other hand, is one of particular facts within experience, and can therefore only be considered in the light of empirical observation. The criterion to be applied to the results of this observation is essentially of the same nature as that applicable to analogous observations in everyday life. Bearing this in mind, the evidence obtained, especially from automatic script when the medium is not entranced, points very markedly in the direction of survival. There are, however, certain philosophical objections based on the nature of space and time, and the mode of manifestation therein of subjective action ; but these objections have practically an important bearing only in the case of purposeless apparitions or hauntings. Yet the importance we attach to the phenomena, and the mode of explanation we apply, must depend ultimately on the general metaphysical theory adopted. To the present writer, the facts appear to be illumined most clearly by the metaphysical hypothesis outlined in the preceding pages, namely, that of a plurality of individual spiritual agents constituting a universe in virtue of the immanence in them of a single universal ground.

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REVIEWS OF BOOKS

The Psychology of the Future. By EMILE BOIRAC. (Kegan Paul, 10s. 6d. net.)

Monsieur Boirac is mainly concerned in this book with the formulation of a theory to explain the various psychical, or "parapsychic," phenomena, whose occurrence he believes to have been adequately demonstrated. A few actual records of experiments are included, but for the most part the author refers his readers to evidence given elsewhere, especially in his own earlier work, *Our Hidden Forces* (*La Psychologie Inconnue*), and anyone who desires to form an independent judgment concerning M. Boirac's conclusions should read the two books in conjunction.

Briefly, M. Boirac seeks to explain pyschic phenomena by the theory of "biactinism," to use the word which he himself has coined *ad hoc*. According to this theory the human organism possesses a power of radiation (the nature of which is admittedly still unknown), whereby it can in some way act upon other living organisms and inanimate objects, or be acted upon by them. The train of thought which has led M. Boirac to this conclusion is most apparent in his discussion of the supposed phenomenon of thought-transference, or diapsychism, as he prefers to call it.

"We cannot," he says (p. 229), "stop at the mere affirmation of the communication of two minds, in the phenomenon of the transmission of thought. Willingly or unwillingly, it is necessary to admit also *the intercommunication of two brains*." (The italics are the author's.) And again (p. 228): "To attribute to thought and will the mystic property of communication from one mind to another without any physical connection between the brains where they have their natural conditions is to place ourselves definitely beyond the realm of science."

Surely this contention begs the whole question of the relation and interaction of mind and body. M. Boirac's conclusion would only follow from the assumption (which he does not appear to make) that man is a physical organism, and nothing more. If, as many competent psychologists hold, man has a mind, or psyche, which is capable of interacting with his body, what *a priori* reasons have we for assuming that the actions of this psychical element in man are "beyond the realm of science," and follow no ascertainable laws? Even if we incline to the idea that the

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apparent gulf between the physical and the psychical is only apparent, and will eventually be bridged by our increasing knowledge of the ultimate constitution of matter, so that the action of the mind upon the body or upon another mind would be reducible to physical terms, even so we could not conclude, as M. Boirac does, that the intercommunication of two *minds* involves the direct intercommunication of two *brains*. The evidence put forward in support of the theory of thought-transference would appear to indicate that the mind possesses a power of acting at a distance in a manner inconsistent with the known laws of physical space. In the opinion of the present reviewer, if the evidence for thought-transference does not prove this, it proves almost nothing. We cannot single out for acceptance those cases which appear to lend colour to the theory of physical radiation and reject those equally well-attested cases which appear to run counter to it.

This theory of radiation is put forward by M. Boirac not only to explain phenomena whose occurrence is still more or less in dispute, such as thought-transference and clairvoyance, but also some of the generally accepted phenomena of hypnotic suggestion. Not that M. Boirac denies that suggestion actually occurs, but in his opinion two distinct phenomena have been erroneously attributed to this one cause. On the one hand, he maintains, there is suggestion, which may be hypnotic, or may be given to the subject in his normal state ; on the other hand there is the phenomenon noted by the early Mesmerists under the term "animal magnetism," which consists in the radiation by a human organism of a "magnetic influence capable of acting upon another human organism."

The reader will naturally ask upon what evidence this theory is based. As has been indicated above, a good deal of the evidence upon which M. Boirac relies was given in his earlier book *Our Hidden Forces*. Some further corroborative incidents are, however, included in the volume now under discussion. For instance, the author relates (p. 165*ff*.) how he tried an experiment upon a boy of sixteen who had never been experimented upon before, and knew nothing of what results might be expected.

"Certain signs made me suspect that the subject was particularly sensible to biactinic action. Therefore, in a second séance, after he was placed in a state of torpor, with his eyes closed, I tried to verify my conjecture. Seated in front of the subject . . . I slid my right foot slowly over the carpet, the toe pointing toward the subject's left foot. I noticed immediately a slight movement, a sort of tremor in his foot. Again I slid my right foot, very slowly and without noise ; this time the subject's foot glided visibly toward mine. Then . . . this foot . . . was advanced by jerks over the carpet, and ended by leaving the ground and raising itself in the air, as if it were linked to mine—which was raised at the same time—by an invisible thread."

A variation of the experiment was then tried, M. Boirac placing his hand a few inches above the hand of the hypnotised subject and drawing it

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slowly away, when the subject's hand was observed to follow the experimenter's movements. M. Boirac admits that "these experiments should be repeated in conditions which would permit of their being rendered more precise and more varied." But that he should put forward such incidents as affording even a *prima facie* case for the existence of an "unknown force" appears to indicate a lack of experimental precision. Two possible causes at once present themselves as alternatives to the theory of biactinic radiation—hyperæsthesia and thought-transference. The first of these, hyperæsthesia, appears to afford by far the simplest and most scientifically economical explanation of the incident quoted above; for hyperæsthesia is a well-established phenomenon of the hypnotic state. However careful M. Boirac was to make his movements imperceptible, a slight degree of hyperæsthesia is all that would be required to make the hypnotised boy aware of these movements, and, being in a suggestible state, he would be likely enough to imitate them.

Some other results quoted by M. Boirac, notably some of those obtained by Dr. Sydney Alrutz of Upsala, are such as to make the hypothesis of hyperæsthesia more difficult of acceptance; they do not, however, exclude the possibility of thought-transference between the experimenter and the subject. One of the first rules in scientific experimentation (and M. Boirac lays great stress upon the importance of applying strict scientific methods to the problems he sets out to solve) is to isolate and control all the conditions of an experiment, so far as possible. Until M. Boirac and those who share his opinions have carried out experiments upon biactinic radiation under such conditions as render it extremely improbable that the observed results can be explained by the hypotheses of hyperæsthesia and thought-transference—more especially hyperæsthesia—the biactinic theory is not likely to find much general support amongst students of psychical phenomena.

The translation of M. Boirac's book, by Dr. W. de Kerlor, appears to be adequate, though it is sometimes clumsy. "We should like to know if the suggestionists have ever tried to be placed in the conditions which would permit them to constate these phenomena" is a sentence which will hardly commend itself to an English stylist.

H. DE G. SALTER.

The Road to En-dor. By LIEUT. E. H. JONES. (John Lane, 8s. 6d. net.)

This unusually interesting book describes how two officers attempted to escape from a Turkish prisoners-of-war camp, and finally worked their exchange, by means of counterfeit "spiritualistic" practices of the "glass and letters" variety. In spite of "tests," the author succeeded in persuading first his companions, and later the Turkish authorities, that he possessed genuine supernormal powers and was the medium for

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communication of a "Spook" of uncommon consequence. By the clever utilisation of a local story of buried treasure the colleagues aroused the cupidity of the Turkish Commandant and "proved" their supernatural powers by the "discovery" of clues which they had previously prepared and secretly buried.

They thus achieved a complete ascendancy over this avaricious and credulous official, and succeeded in persuading him to send them to Constantinople to find the missing clues. Before he finally complied with this scheme they managed to obtain photographic evidence of his equivocal relations with themselves, and handed the proofs over to their fellow-prisoners as a safeguard against possible retaliation.

Circumstances arose which necessitated the abandonment of their original plans, and they accordingly decided to feign madness in order to effect their exchange. This they did with a thoroughness which included hanging themselves while *en route* for Constantinople—a feat which only just missed having fatal results. The story of how they evaded the vigilance of the German doctors is a wonderful story of ingenuity, pluck, and unwavering determination.

It is not unnatural that so successful a career as a fraudulent medium should have led Lieut. Jones to the conclusion that all mediums are equally fraudulent; but, although the description of the *modus operandi* is highly instructive, and doubtless to some extent relevant to the methods of the worst type of professional spirit-monger, it has no bearing on the evidential matter examined by serious students.

Lieut. Jones, gifted with uncommon ingenuity and remarkable visualising power, completely mystified his companions by the adroitness of his technique, but he produced no single item of evidence which would be acknowledged as such by a capable critic. Moreover, the tests imposed were very inadequate, and, even so, it was only the gross carelessness of his examiners which enabled him to pass them. He would probably be the first to admit that if he had been properly blindfolded and the letters had then been shuffled into an arbitrary and quite new order he would have failed at once.

W. WHATELY SMITH.

A Theory of the Mechanism of Survival. By W. WHATELY SMITH. (Kegan Paul, 5s. net.)

A book aimed, as this is aimed, at the ignorant but open-minded outsider, and not at the expert, may fairly claim to stand or fall by an unlearned rather than an authoritative criticism. That this is the Editor's view is clearly shown by his choice of a reviewer.

It is evident that two main pitfalls threaten the "popular" book. One is that the reader may lay it down knowing no more than when he

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opened it; the other is that he may know, or think he knows, far too much. Both these dangers, the Scylla of stodgy obscurity and the Charybdis of snappy, vote-catching dogmatism, are avoided in this work with conspicuous success. The application of four-dimensional geometry to the explanation of psychic phenomena is its object; and its simple analogy, the definition of every technical term before its use, and the ever-recurring reminder that our evidence is flimsy and our hypotheses on trial, combine to form a strong antidote to the superstitions of the credulous and the inertia of the incurious who "are not meant to know these things."

There are defects in detail, idiosyncrasies of punctuation, a somewhat fortuitous perspective; in condensing quotations it is notoriously difficult for one familiar with the subject to estimate how much will be obvious to the beginner. Again, Time is the most fundamental conception of the unlearned man: to tell him that he is wrong and then leave the subject may be good metaphysics, but it is bad policy. Better to leave him anchored to his rock-idea, or to cut his cable if it really fetters him to a delusion, than to take a casual slash at it and sail away. But these are little faults at worst; and it is certain that when the open-minded outsider has repaired his cable, filled in some commas, and puzzled out with which pair of eyes the gentleman on p. 153 saw the back of his coat, he will find himself as open-minded as before, and a little less of an outsider. *Quod erat faciendum.*

W. HOPE-JONES.

Psycho-Analysis. By BARBARA LOW, B.A. With an Introduction by ERNEST JONES, M.D., L.R.C.P. (Allen and Unwin, Ltd., 5s. net.)

This book, by a lady member of the British Psycho-Analytical Society, represents the first British attempt to supply the General Reader who may desire to know what the new science stands for, and what are its methods and achievements, with a descriptive outline of the whole subject, free, as far as possible, from technical terms and from specific allusion to authorities—a list of whom, however, is appended to the book.

On the whole, the work has been satisfactorily done. It is well written; it is easy to understand; it is well digested: but it is too sketchy to serve any very real purpose. The introductory volume by the American psycho-analyst, Dr. Wilfrid Lay, entitled *Man's Unconscious Conflict*, covers the same ground at double the length, and is by no means too full. It is distinctly the better book of the two as a first introduction to the subject.

Miss Low limits her survey to the Freudian theory as developed by himself and some of his disciples, devoting 58 out of the 172 pages of her text to "Treatment by Psycho-Analysis" and to "Probable Social and Educational Results."

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Proceedings of the Society for Psychical Research. Part lxxix. 4s. 6d. net.

The latest part of the *Proc. S.P.R.*, in addition to papers in memory of Lord Rayleigh and Sir William Crookes, by Sir Oliver Lodge and Sir William Barrett respectively, contains a discussion of the Doris Fischer case of Multiple Personality by Dr. T. W. Mitchell and an address on *The Psychological Foundations of Belief in Spirits*, by Dr. C. G. Jung, which was delivered to the Society in July, 1919.

Both these papers will amply repay careful reading by students of the subject, as also will the review of Dr. E. H. Jones' *Papers on Psycho-Analysis*, which follows them.

There can be no doubt that the future successful development of Psychical Research must depend on the application to its problems of the most modern psychological methods and discoveries—especially in the province of abnormal psychology; and it is satisfactory to note an increasing tendency on the part of "orthodox" psychologists and psychopathologists to recognise that many "psychical" phenomena should be included in their sphere of operations.

It is not too much to say that the whole question of Survival is really a matter of studying Secondary Personalities. The question which Psychical Researchers have to determine is whether the intelligences which purport to be discarnate and to communicate through a medium are, or are not, merely dissociated fragments of that medium's total personality. There can be little doubt that this is frequently the case. Dr. Stanley Hall, writing in the *American Journal of Psychology* for 1918, describes a very interesting and instructive case which recently came under his notice, and in which a young girl developed many of the commoner features of mediumistic powers for reasons which could, as it happened, be ascertained and were easily explained on orthodox psycho-pathological lines.

It seems probable that the powers of other mediums may have originated in the same way, and it is greatly to be hoped that, before long, the automatisms and trance-states which constitute mediumship will be subjected to an exhaustive study from the strictly psychological point of view.

In the last few years the psychologist's armoury has been immensely strengthened by the addition of those methods which are comprised under the term "Psycho-Analysis," and it should not be impossible to devise means which will definitely determine, for instance, whether "controls" are fragments of the medium's own personality or whether they differ sufficiently therefrom to warrant our conceding the separate existence which they claim.

The Doris Fischer case is especially interesting from this point of view, especially since one of the personalities claimed to be a separate entity, and Dr Mitchell's paper will be of considerable value to those who wish to get a bird's-eye view of the case without reading the two thousand and odd pages in which it was originally reported.

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THE PSYCHIC RESEARCH QUARTERLY

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EDITORIAL

PSYCHICAL RESEARCH AT THE LAMBETH CONFERENCE AND THE BRITISH ASSOCIATION

IN connection with the recent Lambeth Conference a special Committee of Bishops was appointed "to consider and report upon the Christian Faith in relation to (*a*) Spiritualism, (*b*) Christian Science; and (*c*) Theosophy."

In the course of their Report the Bishops express themselves as follows:

"We say without hesitation that we welcome scientific investigation: we recognise the patience and the skill with which members of the Psychical Research Society examine the mass of evidence of all kinds submitted to them, and above all the unmistakable desire to safeguard the inquiry against illusion or fraud, to arrive at truths, and to interpret scientific facts correctly."

This passage is followed by a brief but excellent summary of the present position of research and the Report then continues:

"The outcome of these conclusions from the scientific side would seem to be:

"(1) To give a serious warning against unregulated and undue exercise of an element of human consciousness which acts independently of the reason and the will, and against allowing reason and will to abdicate in its favour.

"(2) To insist upon an outlook upon life which refuses to accept materialism as a sufficient account of phenomena, and to encourage belief in a spiritual explanation.

"We welcome inquiry conducted in this reverent and scrupulous spirit."

The Report concludes with the following words:

"It is possible that we may be on the threshold of a new Science,

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which will by another method of approach confirm us in the assurance of a world behind and beyond the world we see, and of something within us by which we are in contact with it. We could never presume to set a limit to means which God may use to bring man to the realisation of spiritual life. But there is nothing in the cult erected on this Science which enhances, there is, indeed, much which obscures, the meaning of that other world and our relation to it as unfolded in the Gospel of Christ and the teaching of the Church, and which depreciates the means given to us of attaining and abiding in fellowship with that world."

On the basis of this report the following Resolutions were adopted by the Conference:

"56. We recognise that new phenomena of consciousness have been presented to us, which claim, and at the hands of competent psychologists have received, careful investigation, and, as far as possible, the application of scientific method. But such scientific researches have confessedly not reached an advanced stage, and we are supported by the best psychologists in warning our people against accepting as final theories which further knowledge may disprove, and still more against the indiscriminate and undisciplined exercise of psychic powers, and the habit of recourse to *séances*, 'seers,' and mediums."

"57. The Conference, while prepared to expect and welcome new light from Psychical Research upon the powers and processes of the spirit of man, urges strongly that a larger place should be given in the teaching of the Church to the explanation of the true grounds of Christian belief in eternal life, and in immortality, and of the true content of belief in the Communion of Saints as involving real fellowship with the departed through the love of God in Christ Jesus."

A third Resolution deprecates "the tendency to make a religion of Spiritualism" on the ground, *inter alia*, that "the practice of Spiritualism as a cult involves the subordination of the intelligence and the will to unknown forces or personalities and, to that extent, an abdication of the self-control to which God has called us."

The fact that the Lambeth Conference should have seriously considered these questions would in itself be a source of satisfaction to all who believe in their importance, and for their pronouncements, of which we have quoted the more important, we have nothing but unqualified approval. There are, inevitably, certain minor points on which we find ourselves not wholly in agreement with the Committee; but where so much is admirable it would be ungenerous to insist on trifling discrepancies of opinion.

The Report and the Resolutions are alike conspicuous for their broad-minded and receptive spirit; they show a thorough appreciation of the scientific position, of the extent to which Psychical

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Research might be expected to reinforce Religion and of the point at which the two subjects become mutually independent.

Spiritualism is, for once, both condemned and—in some measure—approved on the right grounds. No attempt is made to ascribe every phenomenon to a fraudulent origin, and no more than a moderately-worded, and amply-justified, warning is given of possible danger from discarnate and maleficent personalities.

It is greatly to be hoped that the clergy in general will carefully study the Report, and that its moderate and sensible conclusions will play a large part in determining their future attitude towards these questions.

Another event of considerable significance for Psychical Research took place on August 25th, when Dr. E. Prideaux read a paper entitled "*A Psychologist's Attitude Towards Telepathy*" to the British Association at Cardiff.

Dr. Prideaux was at pains to show that many phenomena of Psychical Research, which appear very remarkable to persons unversed in psychology, can be explained in terms of modern psychological knowledge without introducing any "supernormal" powers. He also emphasised the fact that impartial investigation is harder to secure in this subject than in any other branch of scientific inquiry, owing to the strong emotional factors involved, which, even if unconscious, are still effective.

With these general contentions we entirely agree; we only wish that their truth were more thoroughly appreciated by many who speak confidently of "scientific proof" in connection with these matters.

But we feel that Dr. Prideaux has gravely under-estimated both the quantity and quality of the positive evidence in favour of certain phenomena, especially Telepathy.

He points out, for instance, that an experienced physician is frequently able to "size up" with surprising accuracy the patients who visit him. He attributes this to a process of unconscious or semi-conscious perception and inference, and rightly argues that a medium in an abnormally sensitive state might achieve far more remarkable and impressive results.

What he does not tell us, however, is how a medium succeeds in giving specific names, and other details, correctly describing deceased persons connected with an inquirer. No amount of conscious or unconscious perception of expressions, mannerisms, and so forth—however acute—will account for this, and the cases of it are so numerous that additional examples of them have long ceased to be of any great interest to students of the subject.

It would be easy to criticise other parts of Dr. Prideaux's paper on similar lines, but we do not propose to do so. We are sure that he

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himself would be the first to admit that the observed facts are not necessarily all explicable in terms of the causes he suggests; whether they actually are so or not is a question which further research will doubtless enable us to answer with greater certainty than we can at present feel.

The important point is that orthodox psychologists are beginning to realise that the obscure phenomena of Psychical Research are legitimate objects for their investigations.

We are very strongly of opinion that we shall never satisfactorily elucidate these intricate problems until we bring against them the latest psychological knowledge and the most powerful psychological methods.

Even if Dr. Prideaux is wrong in some of his conclusions, as we suspect, he none the less merits our thanks for stimulating interest in the subject among professional psychologists; we confidently hope that the future will show a marked and continuous increase in this interest.

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THE PSYCHIC STRUCTURES AT THE GOLIGHER CIRCLE

By W. J. Crawford, D.Sc.

IN my books, *The Reality of Psychic Phenomena* and *Experiments in Psychical Science*, I have dealt with many phases of phenomena occurring at the Goligher circle. Since those books were written I have done a great amount of additional research work, some of which I intend to describe in this article. In order, therefore, to conserve space, I must assume that the reader is already familiar with the publications in question.

I have given reasons for supposing that the psychic structures which emanate from the medium's body and levitate the séance table, rap on the floor of the room, move the table about the room, and in general produce most of the phenomena of the Goligher circle, possess a variety of shapes and dimensions and have various methods of action depending chiefly upon the magnitude of the psychic forces applied. I showed that if a light table, for example, is to be levitated, the psychic structure employed is a cantilever firmly fixed to the medium's body at one end and gripping the undersurface or legs of the table with the free or working end. If, however, the levitated body is a heavy one, the psychic structure employed is not a simple cantilever, but is so modified that the reaction, instead of being thrown on the medium, is applied to the floor of the room. When the table rests upon the floor of the séance room and the experimenter stands behind it and endeavours to push it inwards towards the medium, the psychic structures used are of two kinds: (1) a pair of straight rods proceeding from the medium to the two nearest legs of the table, and (2) a pair of rods proceeding to the floor and thence to the legs of the table. (1) is used when the applied force is likely to be small and (2) when it is likely to be large with the consequent advisability of placing most of the reaction upon the floor instead of upon the medium.

The invariable rule with regard to these psychic structures is that they are as simple as possible consistent with the carrying out of phenomena. They can be divided into two classes: (1) those which seemingly do not touch the floor of the séance room during action upon the experimental table and (2) those which touch the floor somewhere.

The touching of a material body by the psychic structures is an important point in connection with them. The reader must not suppose that a psychic rod resembles, say, the handle of a broom, which

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can be made to apply force to a material body anywhere over its length. The rule is that only that portion of the psychic structure which has undergone special preparation can grip a material body such as a chair or a table. In other words, the gripping part of the structure must have special labour expended on it before it is able to perform its function. It must, of necessity, be a differentiated portion of the structure. It follows from the point of view of the saving of energy that the fewer the number of these differentiated portions the better. And this is the reason that whenever possible a psychic structure at the Goligher circle has only one gripping surface ; in other words, that a cantilever, which grips with its free end and does not touch the floor anywhere over its length, is invariably used if the body to be acted upon is not too heavy, or in general, if the psychic force to be exerted is not too great.

[1] We may call a structure which has only one differentiated gripping area a single-ended structure, and a structure which possesses two differentiated gripping areas a double-ended structure.

It requires a considerable time, from one to five minutes, depending upon the change in dimensions as well as change in form, for a single-ended structure to be converted into a double-ended one. I have experimentally observed the process many times. For instance, I have asked the operators to levitate a fairly heavily-weighted table alternately by the cantilever method and by the strut method, and I have verified their statement that it was so levitated in each case. I found that a minute or more was required to effect the necessary change in the levitating structure. And similarly with other varieties of phenomena.

What I have said about the general shape of the psychic structures at the Goligher circle has been deduced from a lengthy consideration of the mechanical actions due to the phenomena. Dozens of experiments carried out over a period of years could result in no other conclusions than those stated. Force apparatus used in various ways and under different conditions determined the locality on which psychic pressure was exerted, whether that locality was part of the levitated table or part of the floor under or near the table. All the mechanical results *without exception* agreed with the mechanics of a beam fixed to the medium's body at one end and with the other end projecting into the séance room, this latter being supported or not by the floor as circumstances dictated. In short, these mechanical experiments showed that a rigid or semi-rigid structure, at all times connected to the medium and capable of being manipulated in various ways within the circle of space formed by the sitters, was present and accounted for all the phenomena. But though the general outline of these structures was thus ascertained, though the localities of pressure were discovered and the methods in which the psychic beam was manipulated were deduced, yet these

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particular experiments gave no definite information as to the exact shape or composition of the structures. They established beyond all reasonable doubt where the pressures were applied by the structures and what kind of mechanism must be employed to produce such pressures, but they did not go beyond that.

The greatest trouble experienced by the experimenter in tracing the outlines of the psychic structures at the Goligher circle lies in the fact that they are generally quite invisible under the ordinary conditions of the séance room. They are not always quite invisible, but usually so. The fact as to whether they or some parts of them are visible or not depends on several factors. I have found that under the best conditions of sitting, *i.e.*, when strangers were not present and the members of the family were all in good health, that the structures were quite invisible in the red light permitted. On several occasions under such conditions I have carefully experimented to see if I could detect any signs of visibility. I arranged matters so that a strong red light was falling upon the space below the levitated table while another source of red light was shining from behind, so that the whole area between medium and levitated table was itself quite visible. The table remained levitated for several minutes and I shifted my position into various parts of the circle, looking at the space below the table from different angles. But to all appearance the space was empty, *i.e.*, no part of the levitating structure reflected, refracted, or absorbed the light. On many similar occasions under the very best conditions for observation with the red light I have endeavoured to catch a glimpse of the structures; but always in vain on the occasions when only the members of the family were present in the room.

When, however, there are a considerable number of spectators in the séance room some of the structures have in part become visible. Also very lately there has been observed a tendency for portions of the smaller structures to become visible with only one or two persons besides the family present.

What are the conditions which result in the outlines of these psychic mechanisms taking on such a form that they can be seen by the normal human eye? In my opinion they are two in number: (1) when a considerable number of persons in good health are present in the séance room, in addition to the regular members of the circle, a certain quantity of unstable psychic matter in excess of what is strictly required is at the disposal of the operators. This matter is drawn from the spectators and it does not blend well with the psychic matter taken from the medium and the members of the circle. It pollutes, as it were, the main body of the structure, while no doubt at the same time strengthening it, for the most powerful phenomena are obtained with many spectators present. The structure changes like a stream, usually clear, which has become coloured and enlarged by a dirty tributary.

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(2) Of late months the operators have become more expert in thickening the materialised skin covering the structures with the consequence that now and then they become faintly visible.

The Tangibility of the Free or Working End of the Psychic Rod

The psychic rods seem to vary in diameter at their extremities from about half an inch to three or four inches, and the free end of each seems able to assume various shapes and different degrees of hardness. As an example of a rod in what I consider to be its simplest form, *i.e.*, without its end encumbered by design or modified in any of the several ways in which it can be modified, I append the following notes from Mr. Arthur Hunter, of Ballycastle, Co. Antrim. He describes the appearance of a rod to the sense of touch :

"Date : Friday, 5th December, 1917. Circumstances of visit : Accidental in the main. Room : The floor and table were examined by two friends who accompanied me. They also tested the strength of the levitations and the resistances offered.

"Towards the end of the séance I asked the 'operators' (having first obtained the permission of the leader of the circle) if they could place the end of the structure in one of my hands. On the reply, 'Yes,' I went inside the circle, lay down on my right side on the floor alongside the table and placed my gloved right hand between the two nearest legs of the table. Almost immediately I felt the impact of a nearly circular rod-like body about two inches in diameter on the palm of my hand, which was held palm upwards (the back of my hand was towards the floor and at a distance of about five inches from it). This circular rod-like body was flat at the end, *i.e.*, as if the rod were sawn across. It maintained a steady pressure evenly distributed over the area of contact and was soft but firm to the sense of touch. I estimate the pressure at from four to six ounces.

"Without being requested to do so, the 'operators' moved this rod-like structure until I felt the clearly defined edges of the circular blunt end. This was accompanied by a sensation of roughness, as though the edge were serrated, such a feeling, I believe, as would be given by a substance similar to very fine emery paper.

"Then I inquired if the 'operators' could touch my fingers separately with the rod. The question was not quite completed when the touching began :

"Little finger : Gentle but very distinct pressure with a much smaller rod, or by a contraction of the larger one described above. The pressure was exerted over about an inch of the length of the finger.

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"Finger next little finger: Pressure intensified, but otherwise as described above.

"Middle finger: Pressure further intensified, but otherwise as above.

"I detail and emphasise my position inside the circle, also that of my hand, for about three and a half feet distant was a fireplace (without a fire) over which (about four and a half feet from the floor) there was a mantelpiece upon which rested a lighted gas jet encased in panels of red glass. Thus I could clearly see my hand and the space round and beyond the table-legs, but could not see the psychic rapping-rod.

"The impacts were upon the more sensitive side of my hand. When my fingers were being touched or pressed it seemed as if another finger were causing the sensation—a finger of very great strength. During this experiment of pressure on the fingers there was no sensation of roughness such as occurred and is described with the larger rod when I felt the edge of the circular end. My sight is very keen.

"(Signed) ARTHUR HUNTER."

Another experience may be of interest. I have often placed my foot within the circle space and asked the operators to rap on the sole of my boot. All sorts of raps were given. These mostly felt as though they were struck with a fairly soft knob – a knob of matter which, though on the softish side, was yet dense.

I would ask for harder raps, when harder and more metallic blows were struck, *i.e.*, the end of the rod became more rigid and lost some of its cushion-like or elastic aspects. A number of little hard raps was struck in succession, like blows from a tiny hammer. They were struck with lightning speed, showing that the operators have great command over the striking rod—more command, in fact, than we have over our hands and arms. After such an experience it is no longer remarkable that quick dances, reels, etc., can be rapped out on the floor of the room. I asked for the "bouncing ball" on my boot, when the end of the rod almost immediately became softer and struck my boot so that the sounds just resembled a bouncing ball. The feeling was as though the striking object was a "blobby" rounded mass. I then asked the operators to press all over the sole of my boot with the kind of pressure they use to levitate the table, *i.e.*, with the rod end used for that phenomenon. Immediately the rod termination began to change and a kind of plasma which was fairly soft and elastic spread over the sole of my boot. It felt somewhat like a thick pancake. Then, when this plasma-like stuff was fairly over the area of the boot, a tremendous force was exerted upon it, a force so great that, do what I could, I was unable to prevent my foot being pushed back along the floor. During the great pressure exerted the plasma-like ending of the rod did not become harder or more dense than it was at the beginning.

A great deal of experimental work over a number of years results

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in the following data being obtained by the sense of touch concerning the rod terminations:

(1) The end of the rod can change very quickly from a soft plasma-like state to a hard metallic condition.

(2) The operators have great command over the smaller rods and can tap and strike with them at incredible speed.

(3) The condition of the end of the rod as regards size and hardness is changed on demand.

(4) The rod-termination can sometimes actually be felt gradually to increase in size; *i.e.*, the end of the rod has inherent powers of enlarging and a separate and distinct rod is not necessary for each size of rod-termination.

(5) The larger sizes of rod-terminations are usually fairly soft, and it is only the comparatively small ones which become dense and hard. The larger ones feel as though a skin containing a mobile but dense fluid, such as mercury, were being used as rod end.

As I have already mentioned, fitful glimpses of the structures had been obtained off and on in the ordinary red light of the séance room, but this light was insufficient to enable them to be examined at leisure, as either they were more or less transparent or else there was some other condition connected with them which usually prevented them from being seen. Nor is this very remarkable, for many years of experimental work have shown me that psychic structures are acutely sensitive to light, a result which has also been confirmed by thousands of other séances held with many mediums in different parts of the world.

On Saturday, March 8th, 1919, I had the opportunity for the first time of examining one of these structures by the eye. The means used was simple. A sheet of cardboard about a foot square was covered with luminous paint, exposed to sunlight for some hours, and then placed on the floor of the séance room within the circle space. I had tried this method in a haphazard fashion some years before without any pronounced success and I did not expect any great results on this occasion. But either the phenomena had become more powerful and stable in the interim or the operators had by practice improved their methods, for the results obtained were unexpectedly good and the use of phosphorescent paint in various forms placed a powerful instrument of research in my hands.

The medium had her feet and ankles locked into a test-box and it was quite impossible for her to remove her feet from it.

The operators were asked to bring the structure out from the box and to hold it over the phosphorescent sheet.

After a short time a curved body somewhat like the toe of a boot advanced over the edge of the cardboard nearest to the medium and then retired. It did this two or three times as though the operators

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were testing the effect of the phosphorescent light. Evidently this light had little or no effect on the structure, for very soon the whole of its end was quite easily moved above the cardboard, to and fro, or forwards and backwards, as I desired. This (and subsequent séances) gave the following data about the working or free end of the structure :

'Generally speaking, it resembles in shape the toe part of the human foot (Fig. A). The size is also approximately that of the human foot,

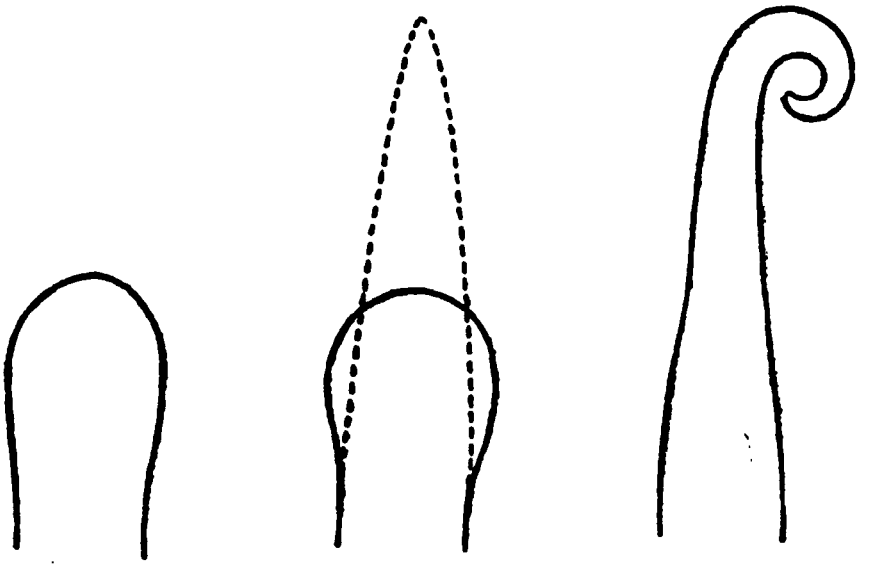


Fig. A Fig. B Fig. C

but is not constant, being sometimes larger and sometimes smaller than the medium's actual foot. This seems the normal unstrained form of the structure. Unlike the human foot, however, it is capable of extraordinary changes of shape, which changes were made at my request and occurred before my eyes. The "toe" part could be seen gradually lengthening until the whole thing resembled a long cone. The end portion would first contract and at the same time gradually lengthen until the shape shown dotted (Fig. B) was reached. After this stage was attained the pointed end would sometimes curl round into a hook (Fig. C), which could evidently be used as an instrument to grip things, such as a table-leg. This hook twisted and untwisted before my eyes.

Sometimes the end of the structure would contract inwards and the sides would spread out until it resembled a mushroom, or cabbage leaf, the edges being somewhat irregular. Or one side would remain normal and the other would bulge far out.

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The body of the rod was of a degree of visibility somewhat less than that of the end part, and seemed to consist of a long, absolutely straight portion proceeding into the mouth of the test-box.

Mrs. Morrison (one of the sitters) says that at one séance she saw in the ordinary red light two structures proceed outwards from the neighbourhood of the feet of the medium and pass right under the table as far as the back legs, *i.e.*, the legs remote from the medium. The end of each structure then twisted itself completely round a back leg and the two structures moved upwards like two arms and levitated the table. The body of each structure was a long straight rod about the thickness of the human wrist.

In another experiment the medium's feet were again held in the test-box and the test was carried out at the beginning of the séance, when the luminosity of the cardboard sheets was at a maximum. The first appearance of the structure from the mouth of the test-box resembled the standard toe shape, as before. On request, this curved end turned completely upside down. It seemed to possess a flexible joint some inches from its termination. On several occasions the working end flattened out into a nearly circular form which was joined to a long, thin, straight arm. Sometimes the circular end tapered slightly at the extremity until the whole thing became heart-shaped. Once it lengthened out until it became very tapered, like a carrot. On several occasions two structures projected themselves simultaneously and placed themselves over the cardboard. Besides issuing over the cardboard straight out from the medium, a structure several times placed itself at right angles to her, *i.e.*, parallel to the front of the test-box, and on these occasions five or six inches of the rod portion could be seen. All the structures appeared of even density on this occasion and did not appear so flexible as at the previous séance, this being due, as I afterwards discovered, to their being more heavily materialised or packed with plasmic matter. As viewed from above they appear black (the observer was looking at them silhouetted against the luminous cardboard beneath). Several times, however, I saw them from the front by the reflected light of the luminous paint, and on these occasions they appeared white. The medium usually wore dark stockings, but experiments showed that the colour of the stockings had no effect on the colour of the structures.

At another séance the medium sat in shoes with her feet on electrical footrests which were so contrived that if she lifted either foot a bell rang. A high dividing board, between the rests, prevented one foot being placed over both rests simultaneously, and the pressures were so adjusted that twice the total weight of the shoes on either rest was required to prevent the bell ringing. The apparatus was tested before and after the séance and found correct. The medium's hands were held all the time and were visible. A large sheet of luminous card-

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board was placed on the floor with its nearest edge fourteen inches from the extremity of the test apparatus.

The psychic structure was repeatedly placed over the cardboard without the bell ringing. Sometimes two structures came out alternately. One would swing over from the left of the cardboard and then the other from the right. Both appeared similar in form, with an irregularly pointed end, roughly moulded, the body being a long straight shaft.

An attempt was made to photograph the structure as it was held over the cardboard. The camera was first focussed on the cardboard. Panchromatic plates were used as it was thought that these would be more sensitive to the phosphorescent light. I explained to the operators that it would be necessary to hold the structures for a considerable time over the cardboard.

A structure emerged and placed itself above the cardboard. It was of the usual broadly-pointed shape. It placed itself in the most advantageous position for being photographed, for the camera was on the left of the medium and the structure placed itelf exactly in the line between the cardboard and the lens. Mr. Stoupe, the photographer, says it was really remarkable how, without being asked, the structure placed itself in the direct line of sight.

I was sitting on the right of the medium and noticed that when the structure retired she gave an involuntary convulsive shudder.

I asked that for the second attempt at photography a pointed structure should be used. Accordingly the structure emerged in a long conical form, like a large carrot. Mr. Stoupe *mentally* asked that it should remain in position for a minute and he ticked over the seconds mentally. He says that exactly at the sixtieth second the structure disappeared. This second structure again placed itself in the line of sight of the camera. The medium shivered most violently when it returned to her. At no time did the electrical bell ring. Unfortunately it was found that the exposures were not sufficiently long to affect the plates.

Flashlight Photography of the "Plasma" and Psychic Structures

Only within the last six months or so has it been found possible to photograph the stuff which issues from the medium's body (I call it "plasma" for want of any better word), and from which the psychic structures are built up which produce the phenomena of raps, levitations, touchings, etc. For about a year I took a photograph each séance night in the hope that success might ultimately be obtained.

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The operators informed me by raps that success would finally come if I would be persistent enough.

The chief difficulty seemed to be in preventing injury to the medium. The operators said it was necessary gradually to work her up to withstand the shock of the flashlight upon the plasma; nor is this to be much wondered at when it is considered that the plasma is part of her body exteriorised in space.

I tried all sorts of arrangements to obtain the desired result. One of them was to hang a black cloth in front of the lower part of her body and to get the operators to bulge the cloth out by structures acting from behind where they would be considerably protected from the flash. This method was successful so far as it went.

However, after innumerable attempts very small patches of plasma were obtained in full view between the medium's ankles. As time went on these increased in size and variety until great quantities of this psychic stuff could be exteriorised and photographed. Then the operators began to manipulate it in various ways, building it up into columns, forming it into single and double arms, moulding it into the different shapes with which, in a general way, I had long been familiar from previous investigation. Not only did they do this, but they showed unmistakably, by means of set photographs, from what part of the medium's body the plasma issued, and by means of ingenious arrangements devised by themselves brought out many of its properties.

By auxiliary experiments carried out chiefly by the aid of carmine dye—by a totally distinct line of investigation—I discovered from which parts of the medium's body the plasma issued. I do not intend to say anything more about this here except that the plasma has the property of adhering to various substances with which it comes into contact. If it touches powdered carmine a distinct crimson trace is left upon the clothing and skin in the track of the plasma as it retires into the body of the medium.

The medium and members of the circle are open to any tests in connection with these photographs. I have gone to elaborate precautions to make sure that the results are genuine, and amongst others have called to my aid men and women of medicine. In order to prevent subconscious action affecting the moulding of the plasma, I withheld the photographs from the medium until the present series was obtained. When I at length showed them to her she was vastly astonished and diffident about my publishing some of them.

The photographic results are not yet complete. They are complete in so far as the plasma in an *unstressed* state is concerned. The shock to the medium, shown by involuntary trembling and shivering which persists for a considerable time, is very much greater when the flashlight impinges on the plasma under stress than on the unstressed stuff.

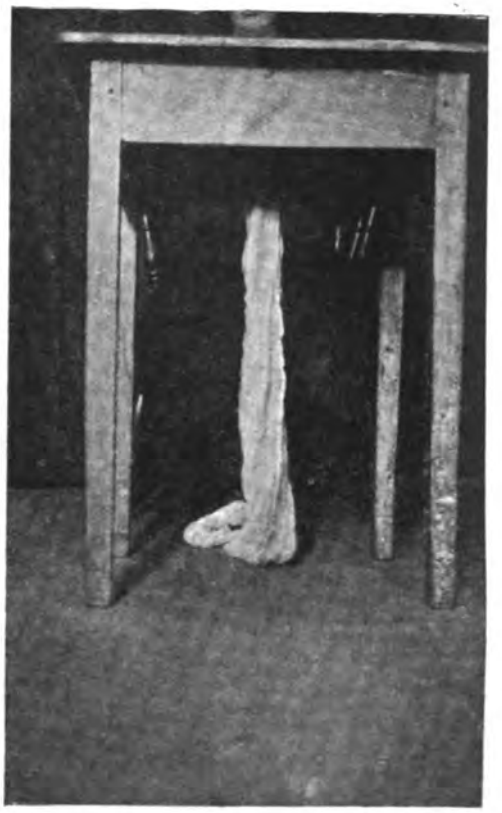
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A



B



C

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D



E

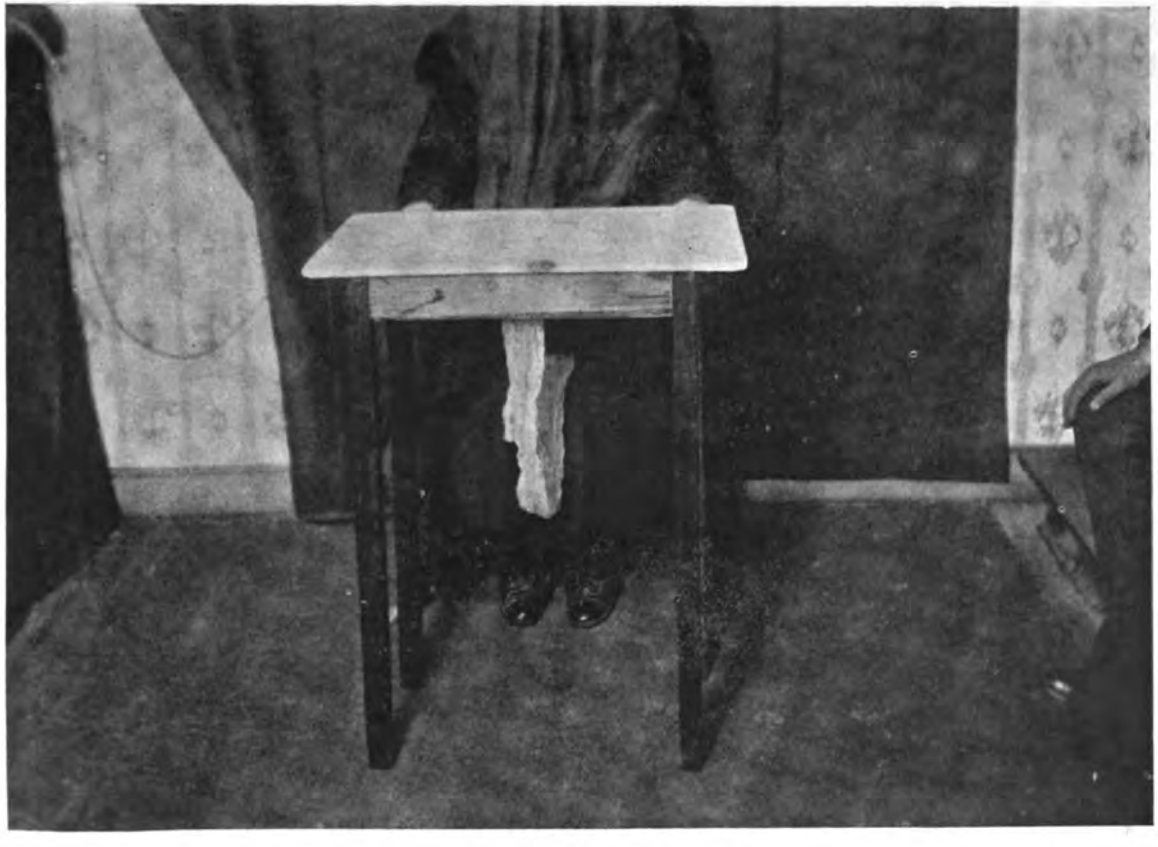


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II

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For this reason no photograph of the completely levitated table has yet been obtained, though partial levitations and small rapping-rods of fair rigidity have been photographed. The operators are gradually working up to full levitation.

I have many dozens of different photographs showing all sorts of processes connected with the evolution of plasma and the building of it up into forms. For the purposes of this article I have selected a few which help to illustrate the fundamental principles elaborated in my two books.

Description of the Photographs

A.—A large lump of plasma on the floor near the feet of the medium. Contact with the legs of the medium is maintained by a loose band of plasma. The large terminal lump creeps along the floor until it is centrally under the table, when it opens out and rises to the undersurface, forming a column or strut.

B and C.—Front views of two psychic columns.

D.—Side view of a psychic column.

When in position as shown the column further elongates and levitates the table. This method is used when strong levitations are required; for example, when it is desired to resist the full downward push of a strong man on the levitated table. During a good séance these columns are immensely strong. I have, on occasion, placed my hand in the psychic matter forming them. It feels disagreeable, clammy and reptilian to the touch.

E.—Instead of advancing entire as in photograph A, the lump of plasma at the feet of the medium may begin to divide into two portions.

F.—These portions elongate and finally form two long arms which grip either the front or back legs of the table. Psychic force is then applied along the arms, which stiffen and levitate the table.

G.—The cantilever method of levitation. The plasma exudes in this case through the dress of the medium and then forms itself into the structure shown, which stiffens and lifts the table.

H.—A psychic column resting on the scalepan of a balance and rising to the undersurface of the table. A small piece of black cloth weighing about an ounce is placed on the scalepan. The balance reads a little over a pound, so that, presumably, that part of the structure resting on the balance weighs about a pound.

Since receiving the MS. of the above article, we have heard with deep regret of Dr. Crawford's untimely death. For some six years he had devoted the whole of his spare time to the investigation of the phenomena, some of which he here describes; his researches are undoubtedly unique in the history of the subject, and his books have aroused a more widespread

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interest than any similar publications since those of Crookes more than forty years ago.

Whether future investigators succeed in confirming his conclusions or not, there can be no doubt that his determination to found them on accurate measurements and the use of mechanical apparatus is in the best traditions of scientific method and should be an object-lesson for all who attempt to elucidate these obscure problems.

We extend our most sincere sympathy to his wife and family.

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"A TEST *SÉANCE* WITH THE GOLIGHER CIRCLE"

WE believe that it is very important that every effort should be made to check the late Dr. Crawford's researches on "physical" phenomena. We are therefore glad to publish the following account of a "test" *séance* which was recently held with the Goligher circle in Belfast.

We do not think it likely that even the most captious critic will suggest that Dr. Crawford's photographic results were due to fraudulent manipulation of the plates or cameras; but even such remote possibilities are worth eliminating and there can be no doubt that this test *séance* does so. Criticism will more probably be concentrated upon the possibility of the medium, or some other member of the circle, concealing a quantity of white gauze or similar material about her or his person and arranging it in such a manner as to simulate the "psychic structures." It will be noted in this case that all the members of the circle were carefully searched before the *séance*, that the medium had "not a shred of white fabric, whether clothing or otherwise, on her person," and that one of the photographs was taken in a good red light. The last point is especially important; it minimises the chance of the medium evading the search, extracting a quantity of fabric from its place of concealment and arranging it to simulate a mass of "plasma" during the period of darkness which usually precedes the taking of the photographs.—ED. *P.R.Q.*

"AN ACCOUNT OF A TEST SÉANCE WITH THE GOLIGHER CIRCLE

"In accordance with the request of a friend, in whose charge the late Dr. W. J. Crawford left all his papers and unfinished psychic work, I recently paid a visit to Belfast for the purpose of going through Dr. Crawford's papers, and taking over on behalf of my friend all available material dealing with the scientific investigations of the phenomena occurring with Miss Kathleen Goligher which were carried out by Dr. Crawford during the last few years.

"In order to see whether it would be possible for a comparative stranger to get the same or similar photographic results as those obtained by Dr. Crawford, I arranged for a sitting of the Goligher Circle to take place at the late Dr. Crawford's house, 1, Brookvale Terrace, Park Avenue, Sydenham, Belfast, at 7.30 p.m. on Monday, September 6th, 1920.

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"It has been suggested to me that a description of the *séance* would be of interest to readers of the *Psychic Research Quarterly*. It has therefore been a pleasure to me to send an account; as bald and accurate a statement as possible of the facts, with every detail.

"On Sunday, September 5th, the day preceding the *séance*, I went to the home of the Goligher Circle in Belfast. It was then arranged that we should hold a preliminary sitting of the Circle at about 7 p.m. on that day for the purpose of learning the wishes of the 'operators' with regard to the procedure to be observed the next evening (I might say that Miss Kathleen Goligher, the medium, had only arrived in Belfast that morning from Scotland, where she had been staying for the past four or five weeks.) It is interesting to note that nothing is ever done without first asking the advice and following the directions of the 'operators'—the unseen 'intelligence' responsible for the phenomenon. I remember Dr. Crawford telling me that he considered the success of his experiments was due to the fact that he always carried out the instructions of the 'operators'—often against what he thought was his better judgment. I was soon to have this point demonstrated very clearly. I had already made up my mind that we would take photographs with five cameras simultaneously and make three exposures. I was told by members of the Circle that I must first ask the 'operators' how many exposures were to be made. So I said, 'Friends, I propose to make three exposures to-morrow night, will that be all right?' Two distinct knocks on the floor signified 'No.' I then said, 'Are we to make only two exposures?' Again two emphatic knocks sounded on the floor. I was rather taken back, and wondered whether we were going to be allowed to take any photographs at all. 'Do you mind saying how many exposures we are to make?' was my next question. At once four distinct knocks on the floor came in reply. 'Do you mean that we are to make four exposures?' I said. Three emphatic and rather impatient knocks signified 'Yes,' with a kind of 'Have we not already told you so?' air about them.

"It will be understood that the communication with the 'operators' is made by question and answer only—not by calling the alphabet; they confine themselves to one, two, or three knocks, which are, however, very varied in character. Sometimes the knocks are very soft, sometimes so loud that they might have been made with a sledge-hammer. They do not always come from one particular part of the room, but vary as far as position is concerned. About two and a half years ago, when I was at a *séance* with Dr. Crawford at the Golighers' house, I sat on the table inside the circle at the Doctor's request when three knocks were given on the sole of my boot. I also actually felt the plasma, which I can only describe as a clammy gripping substance. Another fact is that even the photographs cannot be taken until the

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unseen 'operators' give the signal, which they do by giving three knocks on the floor. This led to a rather awkward dilemma on the Monday night. The curfew was in operation at Belfast. The last trams left at 9 p.m. Cabs were not to be had for love nor money, and thirteen people had to get to their homes in distant parts of the city before 10.30 p.m.; the alternative was to be arrested or shot. We had to remind our unseen friends on the Sunday that there was a curfew on in this city here below, but they would not be hurried. As we were waiting for the signal to take the last photograph the minutes were ticking away towards ten o'clock. It was with a feeling of relief that at last we heard the welcome three knocks. After the photograph was taken we still had to wait while they said good-night, which they do by giving three knocks for each separate person in the room in reply to their individual 'Good-night, friends.' Everything is under the absolute control of the unseen 'operators.' Without their co-operation nothing is possible.

"I was most anxious that results should be obtained in the visibility of a red light. For, so sensitive is the plasma to light, that it had been usual when taking the photographs by the flashlight process to allow two or three minutes' darkness before flashing. I was therefore delighted when, through the medium of the knocks on the floor, the 'unseen operators' gave me permission to make one exposure in the visibility of the red light. What is most important is the fact that they promised me a result under those conditions.

"I asked that the first exposure might be made in the red light. I was at once told that it must be the fourth. Their greater wisdom was proved by the fact that the first exposure was a failure—the only failure out of the four. By means of the knocks (three knocks signify 'yes,' two knocks 'no,' one knock 'doubtful') I was also told at which exposure a table was to be placed before the medium. I also received permission to stand beside the medium while the photographs were being taken, with the result that I saw with my own eyes the 'plasma' itself as portrayed on the photographs in each case. The photographs [not reproduced.—ED.] show me standing close to the medium.

"I will now describe the *séance*. On Monday, September 6th, we all assembled at the house of the late Dr. Crawford by about 7 p.m.

"As any reader of Dr. Crawford's book knows, the Goligher Circle consists of seven members, namely: Mr. Morrison, Mrs. Morrison, Miss Kathleen Goligher, Miss Lily Goligher, Miss Anna Goligher, Mr. Goligher, and Master Samuel Goligher. It is altogether a family affair, being composed of father, four daughters, son and son-in-law, for Mrs. Morrison is the sister of the medium. All the members are mediumistic to a greater or less degree. Miss Kathleen Goligher, the youngest of the four daughters, is, however, a medium of outstanding merit. On the occasion of this *séance* Miss Lily Goligher and Master

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Goligher were unavoidably absent. Their places were taken by Mrs. Crawford (widow of the late Dr. Crawford) and a Mr. Keir, a friend of the Goligher family. In addition to the above there were present Mr. James Pollock, a well-known professional photographer of Belfast, two Bachelors of Medicine, a well-known artist of Belfast, and a surveyor from the north of Ireland. The names and addresses of all who were present are in the possession of the Editor of this paper. I may add that all those present at the *séance* are prepared to swear to the absolute truth of what I have written in this article.

"Two half-plate cameras and three hand cameras were used. The former were manipulated by Mr. Pollock, the professional photographer, and by Mr. S., the artist. They both used their own cameras. Mr. Pollock used a rock-crystal lens that was most kindly placed at my disposal by Mr. S. W. Woolley, of London. The three hand cameras were under the charge of Mr. Hunter, the surveyor from the north of Ireland. All five cameras were thoroughly inspected and overhauled by Mr. Pollock at his studio. In his dark-room I autographed the plates that were to be used, and after this neither the plates, films, nor cameras left my possession. For obvious reasons I was unable to autograph the films, but this is immaterial for, of course, the photographs taken simultaneously with the five cameras are identical.

"I am prepared to swear that no member of the Circle touched or even saw the plates or films. After the photographs were taken I had personal charge of the films and plates, which I locked away for the night. The next morning I took the plates and films to Mr. Pollock at his studio. He personally developed them straight away.

"The results were:

"First exposure: Nothing abnormal.

"Second exposure: A mass of plasma on the floor apparently proceeding from the medium's ankle.

"Third exposure: A mass of plasma extending from the ankle to the underside of the table and more of it on the floor (like a huge muffler).

"Fourth exposure: A small mass of plasma resting on the medium's lap.

"The lady members of the circle were thoroughly searched and examined by Dr. B. and Dr. M. before entering the *séance* room. The male members of the circle were searched by myself. I can go so far as to say that Miss Kathleen Goligher, the medium, had not a shred of white fabric, whether clothing or otherwise, on her person. This is vouched for by the two lady doctors. Before the photographs were taken the circle broke up, leaving the medium sitting in the chair with no one near her but myself. As previously stated, I saw the plasma with my own eyes three times as depicted in each photograph. It was

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seen also by several others in the room. Dr. B. saw it once; Dr. M. saw it twice; others saw it as well.

"My sincere thanks are due to the two lady doctors and to Mr. Pollock, who came at much personal inconvenience; also to Mr. S. and Mr. Hunter, the latter of whom took the trouble to make a special journey from the north of Ireland in order to be present. Last, but not least, my best thanks are due to each and every member of the Circle for their loyal co-operation.

"To anyone who has carefully followed the painstaking work of the late Dr. Crawford any confirmation of the truth of the results he obtained would appear to be both presumptuous and unnecessary; but for the benefit of those sceptics who remain unconvinced I am glad to bring forward the above evidence which, I submit, is irrefutable.

"I am confident that no one who has attended such a *séance* as I have described can help feeling that they have been in the presence of an unseen intelligence with powers beyond our human understanding. I might point out one important fact, viz.—that one of the cameras used was fitted with a wide-angle lens. This camera was placed on the floor quite close to the feet of the medium for the purpose of giving a photograph of the 'plasma' at close quarters. In this photograph the mesh of the stockings is plainly visible, but the plasma shows no structure, nor can any be discovered on examining the negatives under the microscope or by other means.

"(*Signed*) F. McC. STEVENSON."

[This last point is important; it constitutes additional evidence against the possibility of the substance photographed being some kind of white fabric brought into the *séance* room and arranged by the medium.

We have in our possession a copy of a statement signed by Mr. Stevenson, Mr. S., Mr. Pollock, Mr. Hunter, Dr. E. G. B., and Dr. S. M. This statement testifies to the facts that "the members of the Goligher Circle were thoroughly searched by Dr. E. B., Dr. S. M., and Mr. Stevenson, that the precautions described above were taken to ensure that neither plates nor cameras were tampered with, and that "one exposure was made in a visibility clear enough to enable everyone in the room to detect any movement of either Miss Goligher or any member of the Circle, all of whom were sitting at some distance from the medium."

The statement concludes with the following words: "We unhesitatingly affirm that this *séance* has been conducted under strict test conditions; that the phenomena we have seen, and the photographs that have been taken of the 'plasma,' are results which it is an absolute impossibility for any human being to have engineered or produced."

We shall be glad to consider similarly careful records of investigation from others who are studying these subjects.—ED. *P.R.Q.*]

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THE POWERS OF THE UNCONSCIOUS

By Kenneth Richmond

WHATEVER the nature of "mediumship"—the quotation marks are to prevent the word from begging our main question—it is well enough established by now that the unconscious mind of a sensitive plays a large part, if not the sole part, in the production of psychical phenomena. It was for long believed, in the reliance upon material fact that characterises our epoch, that the lifting of concrete objects without physical contact, once properly attested, would prove the operation of wills and forces outside our own. Levitation and other physical effects have now been attested by Dr. Crawford's researches into the Goligher phenomena; and the evidence goes to prove that the forces exercised proceed from the sensitive, and are exercised by or through her unconscious will. In that alternative, "by or through," we are back at the old problem.

A distinguished philosopher lately put forward another aspect of the same problem, in conversation. We know what extraordinary manifestations of energy can occur in hypnosis, in dissociated or semi-dissociated states ranging from normal fear or anger to the manic conditions, and under the influence of great emotions: are we to conclude that these energies are unlocked from a personal store, the product of bio-chemical processes and their possible psychical analogues within the individual? Or does the individual draw upon some extra-personal, perhaps collective, reservoir of vital force? The question can only be asked in order to leave it open; but it is a matter of some importance that it should be left open, since the emergency resources that a human being can put forth have at least the appearance of transcending those of a closed individual system. Perhaps the most striking instances are to be drawn, not from the performances of the healthy organism—such as the astounding feats of endurance recorded during the war—but from the energy manifested by sick and enfeebled persons. When a patient is taking a quantity of food far below the calorie-limit that chemistry seems to require, is sleeping badly, has been long out of touch with healthy metabolism, and yet keeps up a steady and long-continued output of energy beyond the normal range, it is hard to think that his own dynamic system alone is at work. He is not like an engine and dynamo with a lighting circuit attached. The analogy that springs to mind is, rather, that of a lamp in circuit with a

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main source of supply; often of a lamp, in process of being burnt out by current of a higher voltage than it can stand, glowing with a light of abnormal whiteness and intensity.

These suggestions may point to a reason why, in discussing the powers of the unconscious, our instinct is not to limit those powers within the personal radius. Whether the instinct is a superstition or not is another matter: it exists, and its existence is a factor in the central problem of psychical research, the problem of "by or through?" The instinct to believe that psychic impulse flows into expression through the individual, rather than is generated within him, has its effect in two opposite senses. Some thinkers repress the instinct and cling at all costs to the "by" theory, manifestly neglecting or distorting facts that might call it in question; others show the contrary bias, and will have no modification of the "through" hypothesis. Others, again, try to determine how much can be done by the individual psyche, conscious or unconscious, and how much may be done through it; theirs is the more difficult and the more repaying task.

One great difficulty in distinguishing the "by" from the "through" hypothesis is that the two can never be entirely held apart. The human intellect, with its precarious hold upon the outer fringes of present knowledge, is apt to fall back for security upon a false simplification: a thing is either A or B; if it is not A, then it is B, and that settles it. But that by no means settles it when we have to deal with these two alternative functions of the psyche. We have to consider a stage of affairs that recalls the early struggles with algebra in our school days, when we had to think at the same time of descending powers of x and of ascending powers of y. As we look into the evidence presented by psychical phenomena, we find at one end of the scale such fantasies as any dream- or trance-mind could produce from its own resources, without effort; while at the other end we find, not the stuff that dreams are made of, but material that no single mind, as we know the nature of mind, could have woven unaided. Telepathy between terrestrial minds is the least of the "through" functions that we have to postulate for an explanation.

Conscious experiment in telepathy has demonstrated the transference from mind to mind of only very simple images and concepts. It is another question whether the telepathic powers of the unconscious may not be far wider. I shall offer such conclusions on this point as I have gathered from personal study of the unconscious, later on in the present discussion. But first, it may be well to state some general classification of the evidence for supernormal powers in sensitives. It will be seen that the likelihood of telepathy is given its due place in the following scheme.

In Class I. let us group all knowledge, shown by or through the

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sensitive, which is within the conscious or unconscious memory-store of anyone present at the sitting. Such would be the accurate description of a deceased relative of the sitter, with reproduction of characteristic mannerisms and personal reminiscences. (I assume, of course, that knowledge previously in the mind of the sensitive has been ruled out by proper test conditions.) Here we can suppose the material to be put together and presented by the sensitive's unconscious, if we grant it the power to draw upon the memory-store of the sitter. Or we can combine this explanation with another: that the wish of the sitter for a given message operates by telepathic suggestion upon the unconscious of the sensitive. No satisfactory evidence for or against such powers is on record. It might be obtained if, shortly after a productive sitting, both sensitive and sitter would allow an examination of the unconscious content by either the hypnotic or the psycho-analytic method.

In this class we may include a type of evidence that I have often encountered, in which a sensitive, after an unproductive sitting with one person, produces material of evidential interest to that person at a subsequent sitting with other people who are in no way concerned. (This, also, when there has been no opportunity meanwhile for normal leakage of information.) I shall consider later what likelihood there is that such effects are produced by the unconscious in order to give apparent reinforcement to the evidence; only remarking that I have known the phenomenon to occur several times in the case of an educated and critical sensitive who consciously attached no extra value to this "out-of-context" evidence, attributing its retardation to some delayed psychological process. This sensitive, in the presence of a sitter who is a comparative stranger, has a resistance against broaching any subject of emotional significance to the sitter, and therefore, I think, tends to bring out repressed material on later and irrelevant occasions.

In Class II. we may place knowledge shown by or through the sensitive which is not attributable to anyone present (nor to the *residua* of previous sittings), but can be verified by reference to some one other person. Such was a case in which, among a quantity of Class I. evidence, reference was made by the purporting communicator to an incident said to have occurred to a friend in the Burmese jungle, ten days before the sitting, which took place in London. Inquiry proved the account to be correct. (I cite these cases only as being typical of their class, without taking up the space that would be necessary for attestation; similar and fully-attested cases are on record.) Here production of the evidence by the sensitive alone would imply a power of the unconscious to range among the many minds that there are, to choose one mind, and from it to take material that would work up into colourable evidence. This wears the telepathic hypothesis rather thin, and it is easier to take refuge from credulity about

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survival in the idea of a common reservoir in which people's memories, thoughts, and emotions are pooled, and to which the unconscious of a sensitive can obtain some fitful access. Such a reservoir would be the collective or non-personal unconscious of Dr. Jung's system; but we have no evidence that this entity is much concerned with the detailed experiences of individuals. It is, however, greatly concerned with hero-myths and such archetypes of human experience; and we have to be on our guard, among evidence such as that of doings in the war, against the heroic story that bears the imprint of collective origin, but may prove by coincidence to fit closely to some actual heroic deed.

It is worth while to keep a separate Class III. for any body of evidence that is outside the knowledge of the sitters, and cannot have been within the knowledge of any one living person. An instance of the kind is the reference by or through the sensitive to a specified page in a certain book, whose locality and position were described. The contents of the page were unknown to the sitters, but could be presumed as within the unconscious memory of the book's owner, who had no concern with the matter under research and knew nothing of it. What was not within this gentleman's knowledge was the relevance of the indicated passage in the book to a piece of automatic writing also referred to at the sitting; this relevance was not known to anyone until the book was found according to the description and the specified page turned to.

It would seem that to stretch the known and the presumable functions of telepathy between the living to cover material of this order is applying a greater credulity to the telepathic hypothesis than any credulity that we wish to avoid. If we desire to rule out the hypothesis of survival and communication it is simpler to attribute to the unconscious practically unlimited powers of perception at a distance, under the name of clairvoyance, and to proceed to investigate this hypothesis on its merits. But it is best, for those who find it psychologically possible, to investigate all the hypotheses that our data seem to require.

For completeness I may suggest a fourth and a fifth class: IV. for "physical" phenomena such as Dr. Crawford has investigated, and V. for unverifiable accounts of life in a discarnate phase of being. The latter class is not without scientific interest, since the accounts produced by different sensitives, including those who have made no study of existing records, agree remarkably in certain broad essentials. This does not constitute evidence of the order of cross-correspondence, but it shows a tendency of the unconscious (the "collective unconscious" of Jung) to produce fantasies of after-life that are broadly consistent and true to type; and we know that the fantasy-making power of the unconscious is one of the means by which the human

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mind can reach out towards truth—truth apprehended through symbol rather than through fact. The *consensus gentium* shown in the survival-fantasies of the peoples is something to be treated with critical reserve, but with respect; it is a collective wish-fulfilment, but the wish is a dynamic thing that can only function in terms of some correspondence with reality.

In passing from this more general survey to a consideration in some little detail of the powers of the unconscious as they come under observation in pyscho-analytic work, it will be necessary to speak somewhat more diffusely. Investigation of the unconscious has made great strides in a short span of time, but the volume of material and technique that we already have to our hand seems only a beginning, and, as is natural from its origin in therapeutics, is little co-ordinated except for clinical ends. We are especially ignorant, I think, as to the comparative value and quality of unconscious material springing from different "levels" of the psyche. (Spatial metaphor is inevitable, but I will ask to have it read as nothing more than metaphor.) In the dream-life—or, to be more exact, the dream-life as we make shift to retain and represent it in conscious memory—we have a fairly homogeneous presentation of the unconscious product; yet dreams range from crude wish-fulfilment of the childish or primitive type, through ascending strata of the more developed wishes and desires, to a level at which we encounter veridical dream-impressions that suggest some supernormal touch with reality.

It may be of use to record my own idea of the incidence of such impressions, after the investigation of some thousands of dreams experienced by nervous patients, by ordinary people (if there are any), and by sensitives. As I have suggested, the dreams of sensitives appear to show little connection with any phenomena that they produce through automatism. The usual empirical rule of psycho-analysis seems to be observed—that the dream gives vent only to that which is repressed, not to that which is finding other outlets. It would be interesting to analyse the dreams of a professional sensitive who is taking a holiday, and studiously avoiding (repressing) all associations with psychical work. To judge by the fact that most people dream, directly or disguisedly, of the things they "put out of their minds," the sensitive's holiday might be prolific of supernormal dream-material. I have not yet had the opportunity to go into this question with any thoroughness, but I have been able to study the dreams of two or three sensitives who, for one reason or another, have been temporarily repressing their supernormal activities; and the indications certainly favour the view that these activities, deprived of other expression, are represented in the dream-life. I speak with caution on this point, because no completely evidential case has come under my notice in this department of observation.

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In the dreams both of nervous patients and of "ordinary" people, on the other hand, there seems to be a distinct tendency towards supernormal manifestation of the simpler kind. The great majority of dreams are subjective—they concern the dreamer's own interests alone; but now and then a dream turns up in which the dreamer anticipates, surprisingly, some event that he could not normally have foreseen. These anticipations are nearly always of a type that suggests unconscious telepathy, and usually point to the "arrival-message," which is commonly recognised as the easiest kind of spontaneous telepathic phenomenon. Most of us know the experience of thinking or speaking of a person just before that person makes an unexpected appearance. It is a common enough experience to have a proverbial phrase applied to it: "talk of the devil . . ." or, in politer paraphrase, "talk of an angel." An equally common experience, for many people, is to wake in the morning with the thought of a particular person in mind, and then to find an unexpected letter from that person on the breakfast-table. Notes recording the proportion of hits and misses among these impressions have convinced me that their accuracy goes far beyond coincidence. But in this age of objective scientific work and thought many of us have—I have, myself—a strong tendency to deny any evidence of supernormal faculty if an everyday explanation can be invented, and to neglect the evidence if it cannot. The process is one of psychological resistance and repression. And the usual consequence appears to ensue: that which is resisted and repressed in conscious life finds its expression in the dream-life.

My own small experience may perhaps be worth recording, as an instance of the observations that I have made in a number of cases. In dealing with one's own material, one has at least the opportunity to criticise it at every turn, and to eliminate the factor of self-deception as far as possible. For some years I was interested, unscientifically, in the fact that I often happened to think of particular people just before I happened to meet them, or to hear from them, unexpectedly. The interest went no further than the unspoken comment, "Well, that's odd!" At this time, so far as I can remember, I had no "arrival-messages" in dreams; and I think I should have remembered them if there had been any of note, because my attention was well directed towards the subject. Then, as I studied experimental and descriptive psychology, I began to feel that this unscientific interest of mine was very unscientific, and that I had better drop it. Descriptive psychology seemed to hold no place even for the rudiments of telepathy. But as soon as I cast out—or repressed—the apperception of "arrival-messages," and forbade their entry into conscious thought, they began to crop up in my dreams. I was continually dreaming of this or that person who duly put in an appearance on the following day, or of this or that letter which duly arrived by the

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morning delivery. I began to attend to the phenomenon, in spite of my scientific resistances; and I found at once that the "arrival-messages" came through to conscious thought, and ceased to occupy the attention of the dream-mind.

Much attention has been given, and rightly given, to the dream as a prime indicator of the unconscious *status quo*. In psycho-therapy, and in all that concerns the subjective personal life, dream-analysis has an importance and value that we are only beginning to explore and realise. But it seems to me that the dream is not ordinarily, or naturally, the vehicle of extra-personal influence. The many cases of supernormal dreams that are on record would, I suspect, prove on investigation to represent repressed impressions. It seems to be the primary function of dream-life simply to release repressed psychic material; this material, as psycho-analysis shows, may be of the highest importance and value for the individual; but the point I wish to suggest is that the dream-life is not the region of the pysche in which to look for the extra-personal interests of the unconscious, except in so far as these may have become repressed.

By "extra-personal" here, I do not mean to include dream-material springing from the collective unconscious—the variants of universal dream-myths which are personal to the dreamer in virtue of his membership of common humanity. It has already been suggested that this material should be studied on its own merits, as distinguished from the evidence that points to telepathic impression from individual sources outside the recipient's mind. It is this type of impression with which I consider the dream-activity to have no primary concern, unless the factor of repressed interest becomes involved.

Dream-analysis, on the other hand, should be of value in diagnosing unconscious fraud in sensitives; and the conscientious sensitive, to whom unconscious fraud is the greatest of bugbears, should especially welcome this method of criticism. One of the consistent functions of the dream is to throw up symbolic presentations, often subtly satirical, of the dreamer's unconscious insincerities. The analyses that I have been able to conduct have been with sensitives who knew something of psychology and were carefully self-critical; the problem therefore was fully present in conscious thought, was not repressed, and did not emerge in the dream-life. What did emerge, however, was a tendency that had not occurred to conscious speculation: a tendency to confuse purporting communicators with the *dramatis personæ* of the dream-life. It was not so much unconscious fraud that was indicated as entanglement of the psychological factors. In one surprising instance the dreamer (who was much influenced by a mother-complex) was approached by the figure of a deceased male friend, the purporting communicator of recent sittings; this figure attempted to speak, and then abruptly turned into a representation of the dreamer's (living) mother.

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Those who are familiar with the subject will anticipate what the analysis showed: interest in the deceased friend, and the thought of death and separation, aroused the wish for liberation from the mother-image; and the wish was symbolised in the dream by placing the mother-figure instead of the friend among the dead.

This type of confusion, due to the interference of a personal complex, is certainly one that it may be profitable to unravel by dream-analysis, although, as I have suggested, it hardly falls within the province of unconscious deception. It may easily do so, however; especially with two common classes of purporting communicators—the "guide" or "mentor," and the childlike "control." These, supposing them to have spirit-individuality (I have studied some extended evidence, through cross-correspondence, for the individuality of a "control," and it is certainly hard to explain away), may easily become entangled with the parental complexes on the one hand, and with infantile, regressive tendencies of the sensitive on the other. Dr. Jung has studied a valuable case (*Analytical Psychology*, Ch. 1.) in which all the phenomena of an apparent sensitive seem referable to a father-complex as the source of exalted "communications," and an infantile personality as the basis of a child "communicator." In this case no evidential material is recorded, and the whole body of phenomena appears to be an overflow from dream-life of personal and collective unconscious fantasy, the collective material showing the usual conformity to type, I wish Dr. Jung had been able to record the dreams of this subject. especially before and during a phase when semi-conscious and conscious fraud supervened with the gradual cessation of genuinely unconscious phenomena. The question of personal sincerity would probably have been strongly brought forward.

The evidence that I can myself adduce from analysis of the dreams of sensitives is, as I have indicated, of a negative character; but negative evidence must be given its due place. In the cases that I have studied there has been no sign in the material produced—by speaking or writing during trance, and by "automatic" or "influenced" script obtained without trance—of conscious or unconscious fraud. The dream-material of the sensitives, taken at the same time, has equally failed to show, upon analysis, that any humbug or self-deception in connection with the sittings has lain upon the conscious of the sensitives. But it is noteworthy that the same analyses have shown, as is usual, the most unsparing criticism from the unconscious upon any inconsistencies of character and of general attitude towards life in these people. It is those who make the strongest efforts for real sincerity and candour who find themselves faced with the most candid criticism from the unconscious, often amounting to mordant satire, upon their yet unrealised inconsistencies. It seems hardly likely that the dream-critic should portray, with the unsparing irony of the

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caricaturist, every kind of unrealised lapse from intellectual and moral candour except the very serious lapse that would be implied in the production of faked "communications."

Turning from the region of dream-life, and applying the methods of analytical psychology to the actual product of trance, automatism, and "influence," we can adopt the usual and obvious division of this product into evidential and non-evidential matter. Other divisions are critically valuable, such as that between "serious" and "trivial" material, but this is the most broadly useful. Evidential matter stands on its own basis: we have to test its correspondence with ascertainable objective reality and draw our conclusions or our working hypotheses. A summary of method in the comparative classification of evidence has already been sketched. It remains to consider what tests we can apply to the large proportion of non-evidential matter. These tests must be of a subjective, not an objective, character, and analytical psychology is giving us a considerable technique for the application of subjective tests.

Non-evidential material falls roughly into three divisions: (*a*) muddles—chiefly apparent efforts to produce evidential matter, without success, and confusions said to be due to imperfect or mixed "control"; (*b*) messages of personal interest to the sitters, but not scientifically classifiable as evidence; and (*c*) statements, necessarily unverifiable, about life "on the other side." It may be well to consider in order the analysis of these three types of material.

(*a*) Muddles seem to occur in the largest proportion among the less felicitous efforts of professional sensitives. The non-professional, having nothing in particular to transmit on any given occasion, transmits nothing in particular, and there is no more to be said about it; the professional must answer an impulse to give value for money, or to respond to the desires of clients who have made a special journey to obtain the interview. I have given special attention to the analysis of certain muddled, unsuccessful sittings with professional sensitives (having shorthand reports of the sittings in detail), in order to search out any evidence of conscious or unconscious fabrication. It seemed to me that this would be the most likely field in which to find it. Certainly these sensitives were reputed to be of high grade, and did not often give confused material, to me or to others; perhaps it is because of their special high-mindedness that I could not discover, in their worst muddles, any sign of fabrication or fraud. At their best, they gave evidence of one class or another; at their worst, they gave what I can only describe as honest confusion. Students and practitioners of analytical psychology will know how sharp is the distinction between honest and guilty confusion, though the guilt be deeply unconscious. I can only decide that, seeking the best, I have met with fortunate examples in my researches among professional sensitives. But the

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conclusion also emerges that there are conscientious and high-minded followers of an activity which ought not, ideally, to be a paid, professional activity at all. (Still, there are professions that give less for love and also, on occasion, less for money.)

(*b*) Messages of personal interest to the sitters, but not scientifically classifiable as evidence, are particularly troublesome to the investigator. There are two extremes of rational opinion. One is that such messages can be credited if they are accompanied by a proportion of good evidential material. The other is that they must be regarded, provisionally at least, as fantasy, and that nothing but strict evidence must be admitted as possible truth. The latter view, on any hypothesis of communication, does some violence to our sense of human probabilities: if there are communicators, they will surely try to converse with us, and not only to construct and present evidence. Yet it is impossible, from the most generous standpoint, to know how much of the conversation can be called their own and how much may be due to the unconscious mental workings of the sensitive—not to mention those of the "control." This very difficult question of discrimination should become easier as we develop the technique of analytical psychology into a natural habit of mind. At present we can only say, "It *felt* as though So-and-so were speaking himself"; or, "That part didn't *seem* quite like him." We need to translate these feelings and seemings into terms that can be clearly stated and considered; and the analytical technique is bringing these terms within reach. When we can recognise and describe characteristic affects in a purporting communicator, and distinguish these from the typical affects of the sensitive, we shall be on the way towards a reliable system of subjective tests. And when the sensitive and the purporting communicator are of widely different psychological type (extreme extravert and extreme introvert, for example) the test will be all the more trustworthy. There is a respectable body of conservative opinion which holds that when we have brought feelings and intuitions to the test of intelligent statement and criticism we have only pinned down the butterfly—and killed it; but it is to be remembered that all advance in clear thought, and in feeling and intuition as well, has depended upon our increasing power to label our concepts, and so to hold them in mind. And we are learning to think clearly about our butterfly—which is, by the way, an ancient symbol of the Psyche—without pinning it down upon the entomological setting-board.

(*c*) Before considering the statements that sensitives produce about the nature of life "on the other side," I ought perhaps to remark that I am personally biassed towards leniency in the criticism of this type of non-evidential material (non-evidential, except in so far as the *consensus gentium* is evidence); I admit a compensatory bias towards strictness in criticising detailed evidence. We here have

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fantasy, of which we have to judge the content—though not the artistry—by the same criterion that inspires our judgment of Bunyan's *Pilgrim's Progress*, Milton's *Paradise Lost* and Dante's *Inferno*, *Purgatorio* and *Paradiso*. We do not admire these works only for their style: Poe, Beaudelaire and Wilde can outshine them in technique. We admire them also for something which we call their inspiration. We ask whether the essential thing that they say feels true to us: and we admit their greatness—they "live," for us, in spite of many obvious crudities—because our unconscious (or superconscious) sense of truth is satisfied by their main statement. In this region of criticism we have to consider not only the powers of the unconscious as they come to expression in the work of the poet, the prophet and the sensitive, but the corresponding resonance that their utterance induces in ourselves. In fact, we have to consider not only the powers of their unconscious, but also the powers of our own unconscious.

If analytical psychology teaches us anything, it is that judgment on ultimate questions, however much we emphasise and re-emphasise our focus of attention upon rational proof, must be swayed by the nature of our non-rational feelings—whether irrational or super-rational, whether born of prejudice or of intuition. If we say that we have no unconscious bias we deceive ourselves: we are proclaiming the absurdly self-evident fact that we are not conscious of any unconscious bias. The most valuable fruits of analytical psychology, in psychical research as in other things, will be the knowledge that it gives us of our own hitherto unrecognised bias at a lower level than that of conscious judgment, and the power to distinguish this from the intuitional function of the unconscious, operating on a higher, though a less organised, level than that of reason.

There is much to be applied, and much more to be discovered and worked out, in the technique of psycho-analysis for the purpose of criticising both the working and the product of the sensitive's mind, and for estimating evidence in itself. But even more important than the criticism of the process and the product is the criticism of our own criteria.

Anyone who brings analytical psychology to bear upon psychical research will do well to use it, first of all, for the examination of his own real attitude towards the problems that are involved.

It may perhaps be of some illustrative value to readers unfamiliar with the psychology of the unconscious, and also of interest to those who are acquainted with the subject, if I conclude with one small example of the leakage of a sensitive's forgotten memories into a communication that otherwise appears to have been of supernormal origin. I would gladly have included more examples in this article, but adequate description devours space.

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This was an instance of Class II. evidence. The sensitive, an educated man who devotes some time to the development of his special faculties in the intervals of an active professional life, obtains his material without actual trance, passing into a light hyperoid state in which he dictates to an amanuensis the impressions that come to him. These impressions have often proved to be of evidential interest. On the occasion in question he gave details about a purporting communicator entirely unknown to himself or to either of the two other persons present at the sitting. Reference was given, for verification, to a lady who was barely known to those present. The following details turned out to be correct: the two Christian names of the purporting communicator, age at death, and the time that had elapsed since death; the description of the purporting communicator was verified (with one exception, to be noted in a moment), and several personal touches were recognised as accurate and distinctive.

The one exception was that the purporting communicator was described, among other and correct details, as having a corner broken off one front tooth. (This is the point that proved to be of interest in the analysis of errors in communication.) The lady to whom reference was made, while verifying the details that have been mentioned, was puzzled about this reference to the front tooth. The only thing she could suggest was that the purporting communicator had distinctly projecting front teeth, and might have intended to depict this feature. The allusion to a broken tooth was obviously incorrect.

Investigation of the sensitive's latent memories, brought to light by the method of free association, produced these facts: some twelve or fourteen years ago, as a schoolmaster, he had had two pupils under his care who were twins and remarkably alike. Among other resemblances, the two boys both had distinctly projecting front teeth. It was very difficult to tell them apart. The only difference you could notice was that one of the twins had a corner broken off one of his front teeth.

If we dare to speculate, upon the hypothesis of survival and communication, the inference is plain enough. The communicator wished to convey the special feature of "projecting teeth." The sensitive —hyper-sensitive in this instance—had an unconscious desire to get everything right, down to the last detail. He was presented with "projecting teeth" as one of the verifiable details. This was not enough: he had a conscientious worry about getting details absolutely correct. Many people have projecting teeth . . . and thereupon, unconscious memory threw up a way of distinguishing between people who have this dental peculiarity. "The twins were exactly alike; but you could tell them apart by that chip off the front tooth. . . ." The reader will see how the wish for an extreme accuracy may have led to the introduction of a fallacious detail from the unconscious store.

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In my experience "unconscious fraud," brought to light by the technique of analytical psychology, has chiefly resolved itself into this over-conscientious desire to get details exactly right: the sensitive will not remain passive enough to the material that comes up for expression; his unconscious (or rather, one of its many levels) interferes, like a young and too eager sub-editor. And in interfering, be it noted, it does not produce colourable evidence, but a muddle that only contaminates good evidence until its genesis is exposed.

There can be little doubt, however, that the converse is true: that as the too conscientious sensitive can err in the supposed interests of precision, so the sensitive who is not conscientious enough may err in another direction. I have not had much opportunity, as yet, to analyse the material of consciously or unconsciously fraudulent "mediums"; but the inference seems plain that false material can be put up to eke out any scantiness or absence of the true, as well as to confuse the true when it is present. I must say that I have my doubts whether consciously fraudulent "mediumship" is capable of bringing conviction to any but the most stupid, or the most wilfully gullible, investigators. We all know, more or less, how the conscious mind works, and are on our guard against its less ingenuous workings. What we have to understand, in psychical research, is the far subtler working of the unconscious mind: we must know when it is being honest, when it is being more than honest (one grievous fault of the unconscious), and when it is being less than honest—another grievous fault, but perhaps easier of detection. Analytical psychology promises to enable us to cut plain honesty, in the unconscious, free from its encumbrances on either side.

When we have arrived at plain honesty, in the unconscious, we shall know what the unconscious powers really are. It must be admitted, without demur, that this is a counsel of perfection. In our present stage of civilisation, we have not yet reached plain honesty in all our conscious dealings.

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THE EVIDENCE FOR TELEPATHY: AN HISTORICAL SURVEY

By E. R. Dodds

WITHIN the past thirty years, despite the continued incredulity of the great body of orthodox psychologists and physiologists, a belief in the possibility of communication between mind and mind otherwise than through the known channels of sense has become very general among the ordinary educated public. One is frequently assured that "telepathy" is now a demonstrated and established truth, like the law of gravitation, which it would be frivolous to doubt and incurably wrong-headed to deny. But more often than not further conversation shows that this confident and even bigoted faith rests on an exceedingly inadequate apprehension both of the strength and of the weakness of the evidence at present available. Hence it has seemed worth while to attempt here a brief summary and discussion of some of the more important types of evidence. No original theory is advanced, and detailed exposition of cases is of course precluded by considerations of space; the intention is merely to exhibit the main lines which investigation has hitherto followed, and by means of references and bibliography to furnish some clue to those who would pick their way among the growing mass of real and pretended authorities. It cannot be too often pointed out that the evidence for phenomena so sporadic and so disputable as those with which Psychical Research concerns itself must depend for its force on cumulative effect; it is only the beginner who asks for a single "crucial case." The question of telepathy, in particular, is an inductive problem; and the strength of the affirmative position cannot fairly be estimated except by those who have made some first-hand study of the documents in bulk. The present paper is designed to serve as an introduction to such study.

The evidence will be considered under three heads: (1) experimental cases; (2) spontaneous cases; (3) phenomena provisionally referable to telepathy as an alternative to other supernormal faculties or agencies.

I

Perhaps the earliest alleged case of experimental thought-transference is that of the Ursuline nuns at Loudun, of whom Gaston d'Orléans reports that they obeyed orders transmitted mentally,[1]

[1] See Richet in *Revue Philosophique*, Dec., 1884.

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At the beginning of the nineteenth century De Puységur and other early "magnetisers" claimed to exercise a similar power over their subjects;[1] but it would seem that they did not allow sufficiently for the possibility of muscle-reading and other forms of conscious or unconscious inference. Occasional observations of "community of sensation" under hypnosis are also recorded by the older English mesmerists.[2] Professor Barrett, however, in a paper read before the British Association in 1876, was the first to isolate these results from the atmosphere of charlatanry which surrounded them and draw attention to their possible significance. About the same time the "willing-game" came into vogue in England, and cases began to be observed which did not seem explicable by the simple hypothesis of muscle-reading. Popular interest was further excited by the exhibitions of "thought-reading" given by the Zancigs and other public performers. In 1881 systematic experiment was set on foot by the group of which Prof. Barrett, Prof. Sidgwick, Prof. Balfour Stewart, Edmund Gurney, and Frederic Myers were the most important members. They became convinced that there was at least a *prima facie* case for acceptance of the new mode of communication, and in the following year they established the *Society for Psychical Research*. On the continent the beginnings of the serious experimental investigation of telepathy may be dated from Prof. Charles Richet's communication to the *Revue Philosophique*, December, 1884.

In the same year the *American Society for Psychical Research* was founded in Boston; and in Paris the next year saw the creation of the *Société de Psychologie Physiologique*, which has paid considerable attention to telepathy. At present associations for Psychical Research exist also in Germany, Sweden, and other countries.

Before proceeding to summarise some of the more striking results obtained, it may be well to indicate certain sources of error which are liable, unless special precautions are taken, to vitiate such experiments:

(*a*) *Collusion* between "agent" (thought-transmitter) and "percipient" (thought-reader). This is certainly the explanation of most, if not all, public exhibitions of "thought-reading." For a description of the various ingenious codes employed, see Mr. Baggally's *Telepathy Genuine and Fraudulent*.[3] Collusion will hardly, however, be alleged as accounting for the results of experiment in which accredited investigators themselves acted as agents.

(*b*) *Muscle-reading*. This is now generally accepted as the easiest explanation of most cases of "pin-finding," etc., where the percipient,

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[1] Puységur, *Mémoires pour servir à l'établissement du Magnétisme*, pp. 22 29*ff*, Pététin, *Electricité Animale*, p. 127, etc.

[2] E.g., Elliotson in *Zoist* V., pp. 242-5.

[3] Cf. also Bonjean, *L'Hypnotisme et la Suggestion Mentale*, pp. 261-316; and Stanley Hall in *American Journal of Psychology*, 1888, I., pp. 128 ff.

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holding the hand of one of the company, gropes his way to the concealed object. The unconscious contractions and alterations of pressure which furnish him with the necessary indications have been experimentally studied by Gley,[1] who in sixteen cases out of twenty-five obtained tracings showing that these movements increased in intensity as the object was approached and ceased completely as soon as it was reached. Hence in the simpler types of experiment, and especially where the answer may take the form of a plain "Yes" or "No," it is essential to exclude contact between agent and percipient. Muscle-reading, however, can scarcely account for the transference of complex mental pictures (as in Prof. Murray's experiments).[2]

(*c*) Various forms of *hyperæsthesia*. in particular, lip-reading, cornea-reading, reading of unconscious muscular movements, and abnormal acuteness of hearing. These are especially difficult to guard against, as we can hardly assign any definite limits to unconscious perception and inference at close quarters, and the percipient himself is liable to mistake information so obtained for a genuine telepathic impression. As Podmore observes,[3] "It is not the friend whom we know whose eyes must be closed and his ears muffled, but the 'Mr. Hyde' whose lurking presence in each of us we are only now beginning to suspect." Some exceedingly remarkable instances of seeming hyperæsthesia in hypnotised subjects have been recorded;[4] and in view of these, had we no reports of successful experiments other than those in which agent and percipient sat in the same room, one might be tempted to attribute all telepathic phenomena to a temporary hyperæsthesia of one or other of the known senses. But no hyperæsthesia can account, e.g., for the success of M. M. Gibert and Janet in inducing sleep at a distance.[5] And even as applied to cases of thought-reading at close quarters, by percipients in the normal state, this explanation would in some instances require us to postulate a delicacy of perception far in excess of anything hitherto experimentally established.[6]

(*d*) *Coincidence of number-habits, diagram-habits, etc.*, between agent and percipient. This possibility tends to vitiate all experiments where the number, diagram, etc., to be transferred is chosen by the agent instead of being picked at random from a heap or pack. The

[1] "Sur les mouvements musculaires inconscients en rapport avec les images" (*Société de Biologie*, July, 1884).

[2] See Table.

[3] *Apparitions and Thought-Transference*, p. 12.

[4] Cf. especially M. Bergson's case of a boy who when hypnotised succeeded in reading figures from corneal images calculated to have been about $\frac{1}{150}$th of an inch high (*Revue Philosophique*, Nov., 1887).

[5] See Table.

[6] For a striking example of the use of unconsciously received impressions, see the account of Jastrow and Nuttall's experiments for testing the alleged psychological influence of magnets, in *Proc.* American S.P.R., Vol. I.

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No.	Described in	Conducted by	Subject of experiment.	State of percipient.	Distance between agent and percipient.	Total number of trials.	Complete successes.	Partial successes.	Chance probability of complete success.
1	*Revue Philosophique*, Dec., 1884	Prof. Ch. Richet	Playing-cards (suit only)	Normal	Same room	2,927	789	—	732
2	*Phantasms of the Living*, Vol. I., p. 93	Edmund Gurney, etc.	Do.	Do.	Do.	17,653	4,760	—	4,413
3	*Proc.* Am. S P.R., Series I., pp. 322-49	Mrs. J. F. Brown	Numbers 0—9	Do.	Do.	3,000	584	—	300
4	*Proc.* S.P.R., Vol. VI.	Prof. & Mrs. Sidgwick	Numbers 10—90	Hypnotised	Do.	644	117	14 1)	8
5	*Proc.* S.P.R., Vol. VIII.	Mrs. Sidgwick	Do.	Do. (usually)	Different rooms	305	36	10 (1)	4
6	*Proc.* S.P.R., Vol. III.	Malcolm Guthrie	Pains (2)	Normal	Same room	20	10	7	—
7	Podmore, *Apparitions & Thought-Transference*, p. 60	Edmund Gurney	Do. (2)	Hypnotised	Same room	24	20	—	—
8	*Ibid.*, p. 84	Prof. Barrett	Motor impulse (3)	Do.	3 feet increasing to about 30 feet	66	63	—	33
9	*Proc.* S.P.R., Vol. IV.	Prof. P. Janet & Dr. Gibert	Induction of sleep	Normal (but a hypnotic subject)	¼ mile to 1 mile	25	18	4	—
10	*Proc.* S.P.R., Vol. XXIX.	Prof. Gilbert Murray	Complex pictures	Normal	See note (4)	505	167	141	—

(1) Only cases where both digits were given correctly but in reverse order are reckoned as partial successes.

(2) The agent or agents were pinched, pricked, etc., in various parts of their bodies, out of view of the percipient. Cases where the pain was localised with exact correctness by the percipient are reckoned as successes.

(3) That the percipient at a given moment should open or not open his hand in accordance with the unspoken will of the agent.

(4) The percipient (Prof. Murray himself) waited outside the room while a subject was named, then came in and told his impressions.

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universality and permanence of such habits has been convincingly demonstrated by Dr. C. G. Jung.[1] In particular, certain symbols tend to recur to the minds of almost all persons,in the absence of any conscious motive for selecting one symbol rather than another. Thus, when Dr. von Schrencknotzing in one room draws the serpent-staff of Æsculapius and his subject in the next room simultaneously draws a serpent,[2] or when Herr Schmoll draws a circle supported by a cross and his percipient independently does the same,[3] it is not necessary to invoke telepathy as an explanation; for these two are among the most universal sexual symbols, and it is to be expected that most people will have a strong unconscious preference for them. This disturbing factor may of course be easily eliminated by making chance and not choice determine the subject of each experiment.[4]

As regards the ten series of trials which the writer has selected from among a much larger number for record in tabular form, a full description of the precautions adopted in each case is included in the original accounts. In the majority there was no contact between agent and percipient. In Nos. 7 and 10 contact was allowed in most of the trials, but absence of contact does not seem to have appreciably diminished the proportion of successes. No. 10 has certain features which suggest that some of the successes may have been due to unconscious overhearing by the percipient; but for various reasons it is not easy to assign them all to this cause.[5] *In Nos.* 5, 8, *and* 9 *the conditions were such that all explanation by hyperæsthesia of any of the known senses seems decisively ruled out;* and few persons, I imagine, will be disposed to attribute the results of these trials to pure chance.[6] Further evidence in favour of telepathy as against hyperæsthesia may be found in the experiments of Mr. Joseph Kirk with various percipients (Podmore, *Apparitions and Thought-Transference*, pp. 131-9); those of Miss Miles and Miss Ramsden (*Proc.* S.P.R., Vols. XXI. and XXVII.); and those described by Miss Verrall in *Proc.* S.P.R., Vol. XXVII. In the last-named series agent and percipient occupied separate rooms

[1] *Analytical Psychology.*

[2] *Proc.* S.P.R., Vol. VII.

[3] *Proc.* S.P.R., Vol. V.

[4] For a full discussion of the influence of number-habits, etc., see Coover, *Experiments in Psychical Research* (Part IV.).

[5] See Mrs Sidgwick's Discussion in *Proc.* S.P.R., Vol. XXIX.

[6] It should be mentioned that doubts have been raised in some quarters as to the *bona fides* of Mr. G. A. Smith, who acted as agent in Nos. 4, 5, 7 and 8, on the score of the "revelations" published in 1911 by Mr. Douglas Blackburn concerning certain experiments in which he and Mr. Smith had taken part thirty years earlier. These "revelations" are, however, in the present writer's judgment, very seriously discredited by their failure to agree with the contemporary record made by the S.P.R. investigators and published in *Proceedings* S.P.R. Vol. I., pp. 161-215. See *Journal* S.P.R., 1911-12, pp. 115 ff.

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in the same building; in the others they were separated by distances varying from four hundred yards to several hundred miles. Unfortunately, from the nature of the experiments, the degree of success attained in these cases is not susceptible of statistical expression, and it would perhaps be rash to say positively that it is too great to be accounted for by coincidence and common trains of thought.

But in experiments where the idea to be transferred is selected from among a definite number (the particular selection in each trial being determined by chance, not choice) we know the theoretical likelihood of success in each trial on the assumption that no factor other than chance is operative; hence by calculation it is possible to arrive at the mathematical probability that the aggregate results actually obtained were due to some cause other than chance. And that probability is very high indeed: e.g., for Series 2 in our table, of which the results are not to the non-mathematical mind particularly impressive, it has been calculated by Prof. Edgeworth at ·999,999,98.[1] This is not certainty. Certainty in the strictest sense could not by any conceivable series of trials be established: for the possibility of an eccentric run of luck, though it might continually approximate to zero, would never totally vanish—just as it is theoretically possible for me to go on tossing all "heads" and no "tails" to any finite number of trials. But this would seem to be no more than a way of asserting that scientific "truths" are never absolute, a statement which the psychical researcher is not concerned to dispute. The point is that Prof. Edgeworth's figures represent a degree of probability (in favour of *some* cause other than chance) which would be accepted as an adequate basis for any ordinary induction in the domain of natural science.

The calculus of probabilities has, however, been appealed to not only by those who accept telepathy as a fact in nature but by their adversaries. Mr. John E. Coover, in the formidable monograph which embodies the results of the laboratory experiments set on foot in connection with the recent endowment for Psychical Research at the Leland Stanford Junior University, California, lays much stress—we think an undue stress—on the negative evidence. He reminds us that, for example, the 11,150 guesses of numbers by twenty-seven different percipients collected by the American Society for Psychical Research[2] yielded only 10·17 per cent. successes as against the theoretical probability of 10 per cent. He has himself conducted 10,000 experiments in card-guessing, using some two hundred different persons as agents and percipients: about half of these were "control" experiments,

[1] *Proc.* S.P.R., Vol. III., p. 190. [2] *Proc.* Am. S.P.R., Series I., p. 6 ff.

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in which the agent did not look at the card until after the percipient had made his guess. The aggregate results were as follows:

	Card right		Numbers only right		
	Total Trials	Actual	Probable	Actual	Probable
"Real" experiments	5,135	153	128	538	513
"Control" experiments	4,865	141	122	488	486

Applying the calculus, Coover concludes, no doubt rightly, that the degree of success attained in the "real" experiments is not too great to be accounted for by chance.

The legitimate inference from such results would seem to be that telepathy, if a genuine faculty, is of sporadic distribution, and is in most persons either entirely absent or present only in a degree too slight for experimental verification. This may be admitted without prejudice to the value of the positive results obtained with individual subjects not only by the English and French investigators, but in some degree, as Dr. Schiller has pointed out in an able review,[1] by Coover himself. In William James's words, "Thought transference may involve a critical point, as physicists call it, which is passed only when certain psychic conditions are realised, and otherwise not reached at all—just as a big conflagration will break out at a certain temperature, below which no conflagration whatever, big or little, can occur.[2]" To hold that the positive evidence, relatively scanty as it may be, is invalidated by the negative would be like arguing from the admitted inability of most human beings to move their ears, to a denial that any can, with consequent ascription of all alleged cases of ear-moving to fraud or mal-observation.

If we then assume that in the production of the positive results telepathy has been operative, can we reach any conclusion as to the conditions which help or hinder telepathic transmission? It is obvious that in generalising from the narrow range of instances whose supernormal character seems fairly guaranteed the very greatest caution must be exercised. But this inquiry into conditions has so decisive an importance alike for the practical conduct of future experiments and for the theoretic interpretation of present results—above all, for the light that it may throw on the question of physical mediation versus

[1] *Proc.* S.P.R., Part LXXVI. Schiller shows that if we take (*a*) the fourteen most successful series of "real" experiments, and (*b*) the fourteen most successful series of "control" experiments, the figures in both cases exhibit a great excess over the chance probability; and, further, that success in the latter (assumed by Coover to be pure guesses) has a marked correlation with success in the former. It is at least possible that these curious features point to the actual operation in certain cases not merely of telepathy but of clairvoyance—a possibility which Coover ignores.

[2] *Proc.* S.P.R., Vol. XII., p. 4.

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direct mental action—that even with the somewhat meagre records at our command it would be a mistake to leave it altogether on one side. Those records do in fact present three or four salient features which may be significant of some underlying law or laws. (1) Increase of distance between agent and percipient seems to be a factor inimical but not necessarily fatal to success. The evidence of successful experiments at a distance, though strong enough, in the writer's judgment, to discount any wholesale rejection of telepathy in favour of hyperæsthesia of normal sense, is nevertheless noticeably scanty as compared with the evidence for transmission at close quarters. One might infer that at close quarters telepathy operates more constantly because reinforced by hyperæsthesia. But even this seems an incomplete explanation. In No. 5, for example, hyperæsthesia is apparently already excluded; yet when the distance was further increased the experiments failed almost totally. It is of course possible that this negative result was not directly due to the changed conditions but to weariness or to a preconceived expectation of failure. In the spontaneous cases, as we shall see, distance appears *not* to be a determining factor.

(2) Greater success is achieved with hypnotised persons than with percipients in the normal state. Compare, e.g., No. 3 with No. 4 and No. 6 with No. 7 as regards proportion of successes. Experiments with the percipients of Nos. 4 and 5 in their waking condition yielded *no* result. Again, several French hypnotists have succeeded in putting their patients to sleep at a distance [1]; but with normal persons this experiment fails.

(3) The transferred knowledge usually presents itself to the percipient's consciousness in a sensory form—in the majority of cases, visual. Abstract ideas are difficult, if not impossible, to transfer. Sometimes even with subjects in the waking state, the impression is so vivid as to approximate to hallucination. (Certain experiments in the production of actual hallucination are referred to below.) But it is important to note that the thought may be quite differently imaged by the percipient and by the agent: e.g., the former may repeat mentally the *word* "three" while the latter sees the *figure* printed on a card.

(4) The transferred impression does not necessarily emerge at once, but may remain seemingly latent for several hours and perhaps for much longer periods, just as a post-hypnotic suggestion remains latent until the moment appointed for its execution. That this frequently happens in spontaneous telepathy is almost certain. Ex-

[1] No. 9 above; also *Proc.* S.P.R., Vol. V., pp. 222-3; *Revue Philosophique*, Sept., 1888; *Annales des Sciences Psychiques*, Vol. III., pp. 257-67; and cases in Ochorowicz, *La Suggestion Mentale*.

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perimental evidence pointing in the same direction may be found in some trials by M. J. Ch. Roux,[1] and in Mr. Kirk's experiments with Miss Prickett.[2]

The last three of these considerations seem to indicate that the telepathic impact is originally felt not by the waking self of the percipient, but unconsciously or subconsciously. This hypothesis is decisively confirmed by the fact that telepathic impressions spontaneously produced so often emerge as hallucinations or dreams, or in automatic writing, crystal vision and the like, sometimes after a preliminary period of incubation. Abramowski, in his recently published work, *Le Subconscient Normal*, attempts to determine more precisely, on the basis of experiments specially devised, the nature of these impressions. He points out that in telepathy we constantly get "general feelings" of the object, images symbolising it, words resembling it, rejection of false suggestions—in fine, all the phenomena of *recollecting:* telepathy "*prend chez le recepteur presque toujours l'aspect d'une rémémoration de l'oublié*"; hence we may suppose that the part of the mind originally affected by the transmission is that which contains submerged memories (called by him the cœnæsthesia). He claims to have confirmed this by a series of experiments in the revival by thought-transference of recently submerged memories. Further investigation on these lines is much to be desired. In Abramowski's view the telepathic stimulus first affects certain secretory, motor and osmotic processes; corresponding to this there appears a particular emotional tone in the cœnæsthesia, and a particular group of memories is thereby stimulated to revive and pass the threshold of consciousness in the ordinary form of the forgotten-and-now-remembered.[3] In default, however, of further investigation this can hardly be accepted as more than an ingenious guess.

Before we consider the spontaneous evidence attention must be directed to a rare but important type of case which forms a link between the experiments we have been discussing and the spontaneous coincidental hallucinations, viz., hallucination experimentally induced at a distance. The power of projecting a "*doppelganger*" has been claimed by occultists in many countries and many ages. Mediæval witch-trials abound in such allegations. Well-attested modern examples are not so numerous as one could wish, but their collective force is nevertheless considerable, and if other modes of telepathic action at a distance are admitted there seems to be no good reason for

[1] Podmore, *Apparitions*, p. 125

[2] *Ibid.*, p. 136.

[3] Cf. Flournoy's conclusion that, "The psychic processes about to blossom or to fade away in the penumbra of consciousness have more power of radiating to other brains than those which are partly immovable—either in the foreground of attention or in the lowest stratum of the subconsciousness." *Spiritism and Psychology* [Eng. Translation, 1911], p. 212.

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rejecting this variety. One of the earliest and best known cases obtained by the English *S.P.R.* is that of Mr. S. H. B.,[1] who on several occasions succeeded by an effort of will in causing a figure of himself to appear to friends at a distance who were not aware of his intention to try the experiment. Once the phantom was seen by two persons simultaneously. Similar experiments have been successfully carried out by the Rev. Clarence Godfrey,[2] Mr. Joseph Kirk,[3] and others. Almost always the hallucination produced was a figure of the agent himself—a circumstance which led Myers and other writers to ascribe these effects to an actual "psychical invasion" by the agent, a "sending," as the Norse wizards called it. There is, however, an old series of experiments, those of H. M. Wesermann, which if correctly reported show that the telepathic hallucination may take any form determined by the will of the agent.[4] And Dr. Gibotteau found that his patient Berthe, a peasant woman and the daughter of a reputed sorceress, had the power of causing persons at a distance not only to see hallucinations, but to stumble, lose their way, feel causeless panic, etc.[5] This case seems to stand alone at present in the records of serious psychical research; though there are curious apparent parallels in the evidence given at the Cideville libel action (Thorel v. Tinel, 1851), described by Andrew Lang in *Proc.* S.P.R., Vol. XVIII.

II

While, as we have seen, the scientfic study of telepathy is of very recent origin, the belief in certain manifestations which the modern psychical researcher would ascribe to telepathic action is as old as history and as wide as the world. Stories of death-wraiths occur in the primitive literature of most nations. Among the Maoris of New Zealand the faith in the "veridical" character of hallucinations is actually so strong that whenever one of their women sees an apparition of her husband during his absence on an expedition he is assumed to have died and she is at liberty to remarry.[6] We find alleged cases of telepathic clairvoyance in all periods: e.g., we are told of Elisha, that he saw the misconduct of the absent Gehazi;[7] of one Cornelius, that being in Padua he saw Cæsar triumph at Pharsalia;[8] of a certain

[1] *Phantasms of the Living*, Vol. I., pp. 104-9.
[2] Podmore, *Apparitions*, p. 228.
[3] *Ibid.*, p. 244.
[4] *Der Magnetismus und die allgemeine Weltsprache*, 1822.
[5] See Gibotteau's very remarkable paper in *Annales des Sciences Psychiques*, Vol. II.
[6] Lang, *Cock Lane and Common Sense*, p. 193.
[7] 2 Kings, 5, 26
[8] *Dio Cassius*, lib. lxvii.

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Greek, that he fell frequently into trances in which he had vision of distant contemporary events;[1] of a maniac in Gascony, that he saw Coligny murdered in Paris;[2] of a Rev. Cameron, that he saw in Kintyre the flight of the Whigs at Bothwell Brigg at the precise moment it occurred.[3] Again, in Patrick Walker's *Biographia Presbyteriana* there are several very remarkable accounts of collective hallucinations in which telepathy would certainly seem to have been at work. Among historical cases of death-wraiths one may cite the rather suspiciously complete visual, auditory, and tactile hallucination of Dugall Stewart and two other gentlemen which is reported by Buchanan to have coincided with the murder of Darnley;[4] the supposed apparition of Claverhouse at the moment of his death to his friend Lord Balcarras;[5] and the much better authenticated story of the friend who in pursuance of a compact appeared at the time of his death to Lord Brougham, catching that gentleman in the act of taking a hot bath. The theory which attributes such occurrences to telepathy is at least as old as Lavaterus, is implicit indeed in the Norse notion of sendings; but it was not until the nineteenth century that it began to attract the serious attention of the learned. Hibbert, in his *Philosophy of Apparitions* (1825), championed, on a very narrow basis of evidence, the "common-sense" view which puts down the coincidences to chance. In the middle of the century the telepathic explanation was revived by Mayo. But the earliest really adequate presentation of the evidence is to be found in Edmund Gurney's *Phantasms of the Living* (1886), with its careful reports of 702 cases, including some 350 first-hand narratives. Since then a good many additional cases have appeared in the *Proceedings* and *Journal* of the *Society for Psychical Research*, the *Annales des Sciences Psychiques*, and other publications.

The general character of the modern evidence for spontaneous telepathy is well known; but it may be worth while to enumerate here the principal types. Podmore's classification has been followed in the main; and the examples quoted are all to be found in his admirable book, *Apparitions and Thought-Transference*.

(1) *Spontaneous transference in the waking state* of (*a*) sensations, ideas, and mental pictures, (*b*) emotions and impulses to action. Thus, (*a*) a Mrs. Barber thought of telling her two-year-old daughter that she had seen a big black dog with curly hair in a shop that morning; two minutes later the child announced that her mother had seen a big dog with funny hair in a shop. This type, evidentially one of the weakest, has some interest on account of the close parallel with

[1] Pliny, *Natural History*, VII., 52, 174.
[2] Crespet, *De la Hayne de Diable*.
[3] Wodrow, L., 44.
[4] Quoted in Sharpe's *History of Witchcraft in Scotland*, p. 142.
[5] *Ibid.*, p. 170.

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experimental results. (*b*) A Mrs. Hadselle is spending the evening with some friends when she feels an unaccountable desire to return home, accompanied by vague fear: she yields to it, at some inconvenience, and arrives just in time to rescue her son from accidental suffocation.

(2) *Telepathic message received in a dream.* Thus, Mr. E. W. Hamilton, C.B., dreams that his brother, who has been absent in Australia for many years, and of whom he has had no recent news, has returned home and has one of his wrists red and distorted; he makes a note of the dream in his diary the next day; later he learns that his brother was on his way home at the time of the dream and suffering from a very bad abscess over one wrist-joint.

(3) *Hallucinations*, auditory or visual, corresponding (*a*) with the death of the person represented (the so-called death-wraith), (*b*) with other facts unknown to the percipient. Of these two types, the former has in the evidence so far collected an overwhelming preponderance. Thus, (*a*) Dr. Carat in Paris sees one evening his mother's face looking at him with a troubled expression; the experience is a unique one, and he relates it to a friend at breakfast the next morning; he believes his mother—who is at Dunkirk—to be in good health, but learns afterwards that at the time of his vision she was suffering from inflammation of the lungs, to which she succumbed a few hours later. (*b*) Frances Reddall, maid-servant to Mrs. Pole-Carew, while nursing a girl lying ill with typhoid fever has a detailed auditory and visual hallucination (the only one in her life) of the patient's mother, whom she has never seen. She communicates a full account of the experience to her mistress within a few hours of its occurrence. Two days later the mother arrives in the flesh, and all the trivial details observed, even to a hole frayed in the front of the flannel petticoat of the apparition, prove to have been correct.

(4) *Cases of correspondence between* (*a*) *two dreams or* (*b*) *a dream and a hallucination or* (*c*) *two hallucinations.* There may or may not be a further correspondence with some external event. Thus, on the night when Prof. Richet's psychological laboratory in Paris was burnt, two of his intimate friends dreamed of fire; and a hypnotised subject at Havre, told to visit Prof. Richet and see what he was doing, had a hallucination of fire. This case, of course, derives what strength it has chiefly from the triple coincidence with a real event; and in general types (*a*) and (*b*) have little evidential value in the absence of such coincidence. But some collective or concordant hallucinations—type (*c*)—as when husband and wife simultaneously wake to see an unexplained hallucinatory figure in their bedroom, afford tolerably strong evidence of telepathy between the percipients.

(5) *Information received through automatic writing, crystal-vision, table-tilting, etc.* Most of the cases under this head are of ambiguous

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interpretation, but some examples which should almost certainly be referred to telepathy from the living are cited in § 3 below.

This evidence stands in several respects on a different footing from the experimental results. In the first place, save for a very few "reciprocal" cases,[1] the presumed agent can never be shown to have had any consciousness of the part played by him in producing the effect, whereas in experiment the agent's close concentration is apparently necessary. Secondly, in spontaneous cases the impact frequently makes itself felt across very great distances; whereas in experiment increase of distance appears to exercise an unfavourable influence. Thirdly, as regards the nature of the effects produced, few of the spontaneous cases have any adequate experimental parallel. Hence some writers[2] have gone so far as to doubt the justice of ascribing the experimental and the spontaneous effects to the same cause. And it is certainly quite possible that further study of the latter may lead us (as it led Frederick Myers) to modify our notion of telepathy, or even to abandon it altogether in favour of some wider conception. But, while we are by no means in a position to dogmatise, we can fairly say that the assumption of a common cause has for the first time brought such phenomena as the "death-wraith" within the domain of the intelligible, and has so far justified itself as a working hypothesis.

Even apart, however, from these doubts, we must recognise the inferior cogency of the evidence for telepathy afforded by spontaneous happenings. If alternative explanations by hyperæsthesia are here in almost all cases excluded, yet on the one hand the possibility of pure coincidence cannot be discounted with the same confidence as in the best experimental series, and on the other the risk of error in the records is far greater. The reports come not from trained investigators, but from chance witnesses; and it is certain that the evidence of the average witness on any matter, however honest his intention to tell the whole truth and nothing but the truth, is liable to an insidious distortion which he is himself powerless to correct, of whose nature and extent indeed psychologists have only begun to be aware. Such unconscious falsification is most plainly seen at work if we compare second-hand with first-hand accounts: with the lessening of personal responsibility the desire to prove a theory or tell a good story governs in most people almost unchecked, and will determine such illusions of memory as to render second-hand evidence very nearly worthless. "At that very moment my friend passed away" is a phrase which meets us again and again in tales of death-wraiths; but it is only in a

[1] See *Phantasms of the Living*, Vol. II., p. 167; Podmore, *op. cit.*, p. 298.

[2] E.g. Tuckett, *Evidence for the Supernatural*. And of course those who believe in "astral bodies" and kindred hypotheses raise the same difficulties, as regards the most important class of spontaneous cases, viz., apparitions of the living or of persons just dead.

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small proportion of these stories that the alleged coincidence can be established by contemporary evidence. Even with first-hand narratives, in the absence of any record of the facts made at the time of their occurrence, a very large allowance must undoubtedly be conceded to the emotional bias of the narrator. An ingenious French writer, M. Vaschide,[1] found that out of more than 1,000 "hallucinations" occurring among his own acquaintances and alleged by them to be telepathic in character, 96 per cent did not in fact correspond to any objective reality whatever. It should, however, be borne in mind that under the term "hallucination" he includes many sorts of vague imagings and misgivings, experiences which are far more easily distorted in memory than a definite and impressive apparition; and that the stories in his collection had not been subjected to any such preliminary process of sifting as Gurney applied to the evidence dealt with in *Phantasms of the Living*. If we exclude from consideration all narratives which are not (*a*) first-hand; (*b*) obtained from witnesses of good education and known integrity; (*c*) written within a year of the occurrence; and (*d*) confirmed by some independent evidence both of the actuality of the experience and of its coincidental character we are left with a number of cases, small indeed in proportion to the whole mass, yet not to be explained away unless through a long series of improbable assumptions. It would be necessary, in Gurney's words, to suppose.

> "that some people have a way of dating their letters in indifference to the calendar, or making entries in their diaries on the wrong page and never discovering the error; and that whole families have been struck by the collective hallucination that one of their members had made a particular remark, the substance of which had never so much as entered that member's head; and that it is a recognised custom to write mournful letters about bereavements which have never occurred; and that when A describes to a friend how he has distinctly heard the voice of B, it is not infrequently by a slip of the tongue for C; and that when D says he is not subject to hallucinations of vision, it is through momentary forgetfulness of the fact that he has a spectral illusion once a week; and that when a wife interrupts her husband's slumbers with words of distress and alarm, it is only her fun, or a sudden morbid craving for undeserved sympathy; or that when people assert that they were in sound health, in good spirits, and wide awake at a particular time which they had occasion to note, it is a safe conclusion that they were having a nightmare, or were the prostrate victims of nervous hypochondria."

Taken singly, every one of these improbabilities remains a possibility; collectively, they at least suggest that the theory of unconscious fabrication is capable of being overworked.

[1] *Les Hallucinations Télépathiques.* (Paris, 1908.)

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But the hostile critic, if forced to abandon the comfortable doctrine of wholesale mis-statement, is at liberty to fall back upon the simple position that such coincidences as do actually occur are attributable to the operation of chance; and from this fastness of scepticism, so long as he himself *feels* it to be tenable, it is hardly possible to dislodge him. As regards the experimental evidence an appeal to the calculus of probabilities furnished adequate grounds—many people would say, conclusive proof—for the belief that some factor other than chance was present. But in practically all the cases we are dealing with now, except for one important group, such an appeal is ruled out, the likelihood of chance coincidence not being susceptible of mathematical statement. The exception concerns cases of type 3 (*a*) above, hallucinations coinciding with the death of the person seen. The "census" of hallucinations, undertaken by the *S.P.R.* in 1890-92, furnished the basis for an attempt to obtain mathematical proof of a causal nexus between apparitions and death. The argument is, briefly, as follows.[1] The death-rate in England and Wales was, for the decade preceding the *S.P.R.* census, 19·15 per 1,000 per annum. Hence, the average person has 19·15 chances in 1,000 × 365, or about 1 in 19,000, of dying on the particular day on which his apparition is seen and recognised. Hence, for every recognised apparition which occurs within twelve hours before or after the death of the person seen, we should expect to find 18,999 similar apparitions not so occurring. Now the *S.P.R.* by means of a *questionnaire* applied to 17,000 people obtained first-hand reports of 322 recognised apparitions of the living. Of these 322 hallucinations they found, after full investigation and allowance for certain sources of error, that thirty-two, or about one in ten, had happened, without any apparent cause such as anxiety, within twelve hours of the death of the person seen. If this is so, then either there exists some causal connection between deaths and apparitions, or an enormous number of non-coincidental visions (32 × 18,999 = approx. 600,000) were seen by these 17,000 people, of which less than 300 were remembered. This latter alternative was actually embraced by Herr Edmund Parish in his work *Über die Trugwahrnehmung* (Leipzig, 1894;[2] but it conducts to surprising conclusions. For since the 600,000 experiences are distributed over a period of about thirty years, they must occur at the average rate of 769 per fortnight. But only twelve such experiences are reported as falling within the last fortnight before the percipient filled up the Society's census paper. It follows that of recognised hallucinations of the living approximately 98·5 per cent. are forgotten within a fortnight of their occurrence!.

[1] The full report of the S.P.R. Committee, in *Proceedings*, Vol. X., will repay careful study.

[2] English translation in Contemporary Science Series, under the name of *Hallucinations and Illusions*.

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That supposition may be dismissed as fantastic; but that a high proportion of non-coincidental hallucinations would *in process of time* be forgotten was of course recognised by the committee which conducted the census. On the basis of a numerical comparison between the recent and the remote cases they decided that the total number of visual hallucinations recorded should be multiplied approximately by four; leaving in the revised estimate a proportion of coincidences amounting to about one in forty. Precautions were also as far as possible taken against another disturbing factor, viz., preferential selection by the collectors of persons known to have had coincidental experiences. On the whole, the committee's conclusion that death coincidences are due to some other cause than chance seems a fair inference from the statements presented to them. At the same time, their inquiry can hardly be regarded as establishing beyond cavil the theory of telepathic hallucination. For that, not only a more thorough study of the possible sources of error, but a much wider field of evidence would be required. As Andrew Lang observed: "Nothing can *demonstrate* that coincidences between deaths and hallucinations occur more frequently than by the doctrine of chance they ought to do, except a census of the whole population." [1]

III

The reader of this essay will probably have noticed that by far the greater part of the material reviewed in it was obtained before the beginning of the present century. Since 1900 two or three important additions have been made to the direct experimental evidence,[2] and a certain number of new spontaneous cases have been recorded; but, speaking generally, it is true that the attention of psychical researchers has for the past twenty years been directed elsewhere: in England, principally to the evidence for survival obtained through automatic writing; on the continent, largely to "materialisations" and to the obscure range of phenomena loosely described as "clairvoyant." The special problem of telepathy seems to have been temporarily shelved, leaving the limits of action of this singular force almost wholly undetermined and the proof of its operation less conclusive than one could wish. It is not, however, possible, for our present knowledge, to study any one branch of Psychical Research entirely in isolation from the rest. Apart from the types of evidence exemplified above—

[1] *Encyclopædia Britannica*, Ed. X., art. "Psychical Research."

[2] The S.P.R. *Journal*, Feb., 1915, made an urgent appeal for further experiment.

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the evidence on the basis of which the orthodox conception of telepathy was framed—there exists a further mass of somewhat heterogeneous material which, if accepted at its face value, points to the operation *either* of telepathy *or* of some other force or forces not recognised by science. It is no part of the writer's purpose to discuss these alternative interpretations. But it must be pointed out that *if* the telepathic explanation be preferred here to the assumption of some other supernormal agency, (1) the general case for telepathy as against fraud or misdescription receives an important access of strength, (2) the orthodox conception of telepathy will require modification in more than one particular. The present survey cannot, therefore, be brought to a close without brief reference to some of these ambiguous cases.

The word "clairvoyance" has been used with several meanings, distinct but not always distinguished by the users. It may signify a supernormal faculty of obtaining *without any apparent co-operation of other minds* information which exists (*a*) in the minds of other persons present; or (*b*) only in the minds of distant persons; or (*c*) in no living human mind. Clairvoyance in the last of these senses (called by Myers telæsthesia) is by definition a faculty independent of telepathy; and believers in the actuality of telæsthesia commonly regard clairvoyance in the other two senses as being likewise in some degree an independent faculty. On the other hand, those who, like the writer, consider telæsthesia as not proven and telepathy as fairly well established, are naturally disposed to include all well-evidenced intermediate phenomena as far as possible under the head of the latter. Now there are in fact a number of striking cases where, in Podmore's words,

> "the transmitted idea seems to reach the mind of the percipient no longer as the meagre result of a serious crisis or of a direct and often prolonged effort of attention on the part of the agent, but spontaneously, with great fulness of detail, and often with remarkable ease and rapidity, as the outcome of a special receptivity on the part of the percipient."

Occurrences of this sort have been observed almost exclusively in association either with trance conditions (spontaneous or hypnotically induced) or with some form of deliberately cultivated automatism.[1]

Two very important early instances of seemingly clairvoyant faculty manifesting itself through "autoscopes" are the Newnham case,[2] where the automatist's hand repeatedly wrote with a planchette clear and appropriate replies to questions which she had neither heard

[1] Some coincidental hallucinations perceived in the normal state do, however, present features suggestive of clairvoyant vision. See, for instance, *Proc.* S.P.R., Vol. VI., pp. 33-4, and Canon Warburton's case, *Phantasms*, I., p. 338.

[2] *Proc.* S.P.R., Vol. III., pp. 8-23. Cf. Vol. IX., pp. 61-4.

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nor seen; and the celebrated "two-table" experiments of Prof. Richet.[1] In the latter the percipients sat with their hands resting on one table; a printed alphabet was placed on another, out of their range of vision, and M. Richet kept his pen moving steadily from letter to letter. Whenever the first table tilted it caused a bell to ring, and the letter to which M. Richet's pen at that moment pointed was noted down. In these conditions words and sentences were spelled out; and it was further found that the word to be spelled could be determined with more or less accuracy by the unspoken will of another operator who stood apart from both tables. A similar and even more impressive phenomenon is the picking out by blindfolded sitters of cardboard letters scattered indiscriminately over a table and covered with a thick sheet of glass, in such a manner as to spell rapid continuous messages.[2] If these results are to be attributed to telepathy from the persons looking at the letters (clairvoyance in sense (*a*)), not only do they show the faculty working with a speed and precision otherwise unexampled, but they furnish the crowning proof that it is, for agent and percipient alike, an activity of the Unconscious. The records of the trance utterances of Mrs. Piper include many cases of "thought-reading" of a more familiar kind, i.e., the production of specific pieces of information which seem to have been supernormally derived from the conscious or unconscious minds of her sitters: the "Uncle Jerry" case, described by Sir Oliver Lodge in *Proc.* S.P.R., Vol. VI., may be cited as an especially clear example.

For the spontaneous derivation of knowledge from *distant* minds (clairvoyance in the second sense) there is also a good deal of evidence, into which it is not possible to enter in detail here. Results pointing in this direction have been obtained with hypnotic subjects;[3] through the instrumentality of the crystal;[4] through automatic writing;[5] and with the mediation (whether indispensable or not we are hardly as yet in a position to say) of objects belonging to the distant person (the so-called "psychometry").[6] By far the most striking, however, of well-authenticated recent cases which might be included under this head have occurred in *soi-disant* communications from the dead, and are held by many persons to afford evidence not of telepathy, but of

[1] *Revue Phil.*, Dec., 1884; discussion by Gurney in *Proc.* S.P.R., Vol. II., pp. 239-64.

[2] Described by Sir William Barrett in *Proc.* S.P.R., Part lxxvi., and by the "medium" herself in *Voices from the Void*; and more than once witnessed by the present writer under conditions which, in his judgment, precluded any normal explanation.

[3] See the papers by Mrs. Sidgwick and Dr. Backman in *Proc.* S.P.R., Vol. VII.

[4] See the cases quoted by Myers in *Proc.* S.P.R., Vol. VIII., Part xxiii.

[5] See, e.g., the "Mackenzie" case, quoted by Barrett, *Proc.* S.P.R., Part lxxvi.

[6] See Warcollier in *Annales des Sciences Psychiques*, July, 1911; Osty, *Lucidité et Intuition*; Travers Smith, *Voices from the Void*.

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survival. In the discussion still raging round the "cross-correspondences" which now for a number of years have occupied first place in the S.P.R. *Proceedings*, the hypothesis of telepathy (and telepathy, too, of an otherwise rare or even unexampled type)[1] has surprisingly become the recognised refuge of the cautious or sceptical critic. The moral which the writer is disposed to draw from the whole of that confused and hitherto indecisive controversy is that little progress is likely to be made with Psychical Research until the nature and limitations of the telepathic faculty have been determined with some degree of precision by means of further experimental study.

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[1] This point is very clearly made in the Rev. M. A. Bayfield's paper in *Proc.* S.P.R., Vol. XXVII.

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FREEWILL IN ITS BEARING ON IMMORTALITY

By the Rev. A. R. Whately, D.D.

FAR too little importance has been attached to the significance of freewill in the various arguments adduced for immortality. Such at least is the opinion of the writer of this article, and an attempt will here be made, as far as our limits permit, to make it good.

What do we mean by freewill? First, what do we not mean?

(1) Not the mere negative Indeterminism of William James, as set forth in his celebrated essay *The Will to Believe*. That not all the actions of men are previsible, or absolutely fixed beforehand in their antecedent conditions, is, I hold, perfectly true, but only one side of the truth, and certainly quite incapable of bearing the burden of our argument. In other words, freedom is not chance.

(2) Nor yet again the opposite and very favourite modern theory miscalled Self-determination. It is little to maintain that some of our actions proceed truly from ourselves, and are not the automatic results of our environment and physical condition, if the very activities of our souls are all as truly involved in their constitution at the beginning, as, according to the extreme Determinist, they are involved in the very foundations of the universe. In other words, we have here no use for any theory of automatism, whether material or spiritual, universal, or individual. True determination of ourselves—such as many of us believe to be essential to the very idea of morality—presupposes indeterminism: that is, real issues to be decided, and therefore not pre-decided.

(3) We must also make clear our position with reference to a widespread confusion of thought which prevailed throughout the great theological controversy on fate and freewill which emerged in different forms during the history of the Christian Church. Freedom, in these controversies, was generally regarded as the power to do good, and with this, of course, were associated good words and thoughts. Whereas freedom, in its moral aspect, is the power rather to *be* good: for in all particular moral duties possibility, not merely physical but moral, is presupposed. It is when we have regard to the *general* moral attitude of the person, the general bent of the will, that the true bearing of the question of freewill—and with it the answer—appears. Freedom—so far as it is a power—is the power of the higher

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centres—if we may express it in terms of the brain—over the lower.[1] But behind this lies the *choice* of the upward path, and, when this choice is made, some measure of power to carry it out in particulars is already present. It is only in the sphere of self-discipline and self-mastery, especially as directed to moral ends, that the nerve of human freedom is to be traced. Here is the conflict, with its victories and its failures. Established virtue is above it, physical effort is below.

We are now in a position to define freewill, at least in the aspect that here concerns us, and this definition is corrective of the three inadequate views thus briefly set forth. Freedom is *power over oneself*. It is the control and organisation of the lower levels of our selfhood by the higher, and ultimately by the emancipated soul in its integrity, the Stoic Wise Man, the Christian Saint.

As against the first view, it is certainly not chance, for it is rational and deliberate. As against the second, let us note that if all changes in the soul and all its new departures are predetermined, they cannot be determined afterwards: if for us, then not by us; our own intentions and efforts are merely antecedents, not causes.

Freedom, as Bergson justly maintains, is primarily the action of the *whole* man. But it has degrees: it may be relative or absolute; in any case it is a fact *per se*, irreducible to anyother conception whatever.

But further. It does not follow the leading of mere impulse: it belongs to rational beings as such, though the use of it may often be unreasonable. Yet it is not merely identical with rationality. True freedom is the very negation of automatism, whether the machine be worked by feelings or by ideas. There must be real choice: real initiation: and this implies self-direction, self-control, self turning inward upon itself. And this, conversely, cannot be predetermined, for it means that we are not constructed unchangeable.

Canon Rashdall, in his defence of "Self-determination" takes some note of this objection, but thinks that it rests on a confusion between "character" and "some ultimate psychological or metaphysical ground or basis or source of 'character,' true or false."[2] But we must demur to this distinction, as utterly unreal and scholastic. It savours of the "substance and accidents" theory which afforded so neat an explanation of transubstantiation. A man's character—certainly in its deepest aspects—is himself. If it changes, then so far forth *he* changes. Of course there is always the thread of an identical

[1] The subject of dependence upon God is not within the scope of this article, but, to avoid misunderstanding, one simple proposition may here be made. Freedom of the will does not mean independence, but the choice of our ideal and of that on which to depend, and the maintenance of this choice point by point afterwards.

[2] *The Theory of Good and Evil*, Vol. II., ch. iii., p. 303.

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personality. But this itself is not isolated from the moral and spiritual qualities: it expands or contracts as these thrive or decay.

The tendency of this form of Determinism is to make character as little as possible a part of the man himself, and to leave us to imagine I know not what occult soul-substance from which actions emanate but upon which they do not return.

But before we proceed to apply our definition of freewill to the question of immortality, we must complete it. If it is really to mean anything as an aspect of personality we must recognise it on lower levels than the pathways of high moral endeavour. It must shade down towards—and even right into—the functions of animal life.

The lowest level is that of the actual bodily functions that are under our control; for the control of these, such as we all have—even apart from that higher dominance of matter that we ordinarily call self-control—is relative freedom. I shall touch on this point in a moment, when we come to consider briefly the scientific aspect.

Above these functions, reflex or instinctive, is the level of deliberate action with a view to proximate ends. (This, let me remark by the way, is only a rough gradation. The force of the argument does not depend upon its exactitude.)

Thirdly, there is the level of higher intelligence and self-government, that seeks further ends, if it be only the provision for one's own declining years.

Fourthly, there is the supreme self-organisation of the man who *uses* from above even that in him that is highest for most: whose character is the raw material of the higher self-culture: whose natural virtues are the servants of his ideals; the man who believes in the permanence of spiritual values, and lives—whatever his natural imperfections—in generally consistent conformity with that belief. This we have made the basis of our conception of freedom; and it is not difficult to see that, once we have done so, freedom extends in diminishing degrees down to the lowest level.

Let us consider this for a minute. Beginning from the highest, and last-mentioned, let us designate these levels by the letters A, B, C, D. A represents the nearest approach we can conceive to absolute freedom. It governs D, not only directly, but through B and C, and uses and transforms even those characteristics, moral and mental, of B and C in which B is superior to C and C to D.

Now, if we do believe at all in the reality of that spiritual sphere which, even though perhaps he may imperfectly realise it, is for the man at the A level the presupposition of his whole life-attitude, we cannot possibly regard B and C as reducible to D, and all three merely mechanical. As B is to A, so is C to B and D to C. Relatively to the level below, each level above the lowest is pure freedom. Take the man at the B level, the man of more or less selfish forethought.

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Why is he not fully free? He is very largely master of the impulses of his body. If we refuse to allow that he has found the highest freedom, it is not because freedom as such is a delusion—because matter and energy are the whole of reality—but because he possesses so imperfectly what we see him to possess in some degree. We admit the principle of freedom in the fact of our commenting upon his bondage to low ideals.

And so our definition of freedom as power over oneself covers the whole range of conscious activity, but appears as a matter of degree. And the conclusion is surely inevitable. The intermediate level controls the lower, and in so doing is—in the greatest personalities—controlled by the higher. *This shows that the former process, even when not controlled from above, is not absolutely predetermined.* Even the C level can only be explained as mechanical, by first restricting our study of it to its mechanical aspects. But this brings us to the scientific question.

It would certainly seem that the confident assumption that science is in a fair way to prove the complete dependence of mind upon brain is, to say the very least, premature. Even if this result could so far as concerns science, be attained, it would be open to anti-materialists to urge that science had thus only revealed more clearly the essential limitations of its standpoint: that such a result, though true relatively to that standpoint, is meaningless in the larger contexts of thought. But even science itself seems to be marking out its own frontier, from its own side of the frontier, in this question of mind and brain. And our justification for considering that question here lies in this: that Will, as the principle of control and organisation, is for us the key to its solution.

Scientists in general would not now, I suppose, seriously dispute the proposition that the brain is, at least in one aspect, the organ of the mind. In this connection we have an elaborate "History and Defence of Animism"—to quote the sub-title of Dr. McDougall's *Body and Mind*. On grounds of Psychology and of physical science he shows (in the words of his own summary) "that the mechanical principles are not adequate to the explanation of biological phenomena," and likewise that "a strict parallelism between our psychical processes and the physical processes of our brains does not as a matter of empirical fact obtain; . . . that facts of our conscious life, especially *the fact of psychical individuality, the fact of the unity of the consciousness* correlated with the physical manifold of brain-processes, cannot be rendered intelligible (as admitted by leading Parallelists) without the postulation of some ground of unity other than the brain or material organism."[1] The words I have italicised indicate the link with our

[1] Page 356.

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present subject. The writer finds that the purposive organisation of the cerebral processes cannot be explained merely in terms of those processes. "The facts, then, point strongly to the view that conation or psychical effort really intervenes in the course of the physical processes of the brain, and that it plays an essential role in the building up of the organisation of the brain. And it may be plausibly maintained that all other modes of consciousness serve but to guide or determine the incidence of conation, the primary and most fundamental form of psychical activity." [1]

The reason why the Will is so elusive to science is not difficult to perceive. It is of the essence of scientific process to investigate law and to reduce to classification. Now free action is, as such, superior to the inevitableness of law, and the individual, as such, who is the bearer of freewill, transcends classification. Disturbing factors are to be eliminated, and the personal equation is essentially a disturbing factor. No study of nature which starts on the basis of mechanism can—however valuable and fruitful in itself—discover that all *is* mechanism.

It is with diffidence that I make any pronouncement on this point; and yet, beneath any possible inaccuracy, I am convinced that the main contention is sound, for, after all, the justification and the glory of science rests in its verifications, and even the non-scientist knows that there are regions of ideas bordering on science, yet where scientific verification is in the nature of the case impossible.

The "soul," or the "self," is not and cannot be a term of science, neither can the Will—which is the main subject of this article—so far as science studies nature in its character as determinate.

There is, however, a different way of regarding scientific method: that, for instance, of Dr. Haldane, and Dr. McDougall himself. If they are right—if biology, for instance, will not fit into mechanical categories—then we must regard scientific method as expanding according as its subject-matter approaches the larger and higher realities. But it all amounts to the same for the purpose of our argument. Scientific method surely must be regarded by all who believe in a spiritual universe—either as adapted only to a limited aspect of reality or else as progressively enlarged and transformed according as its data rise in the scale of being.

But science, it would seem, even when adhering to rigid methods, can call our attention to an unassimilable and refractory residuum, which is so sharply distinguishable from the facts it can explain that even its progressive success in explaining these facts raises no presumption, but rather the reverse, that it will ever assimilate the residuum. And this, as it appears to me, is the position with regard to the unity

[1] *Ibid.*, p. 279.

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of consciousness : to conation : to all that is involved in the conception of personality.

Here, undoubtedly, we find ourselves on the frontier of philosophy, which alone can argue positively that this residuum is really and necessarily such, and can attach to it an intelligible meaning.

But there remains an important question while we are dealing with the scientific evidence. Although, in respect of volition and the higher intellectual capacities, the soul appears as superior to the body, yet in respect of the sensory content of consciousness, it appears dependent upon the body. Dr. McDougall suggests that after death it " might find conditions that would stimulate it to imageless thought (possibly conditions of direct or telepathic communication with other minds), or might find under other conditions (possibly in association with some other bodily organism) a sphere for the application and actualisation of the capacities developed in it during its life in the body." [1]

The alternative of " imageless thought " is one that raises a wide question, that of the fundamental relations of thought to sense and imagination. As we are here primarily concerned with the Will, there is no need or space to enter upon it. The second alternative is the one that ought to arrest our attention. Occultism claims to have discovered spheres of material existence, of which the vibrations are outside the range of our senses on this earth-plane. The acceptance of this doctrine will depend very largely on our several pre-dispositions. For myself, I can only regard it as such that the burden of proof lies rather with those that deny than with those that affirm it.

Let us consider how the matter stands *a priori*. We must not surrender our minds too completely to the leading of the term " soul," however fascinated some of us may be by Dr. McDougall's vindication of its superiority to material conditions. It suggests, like the general term " spirit," a sharp antithesis with matter as such which is not present in our conception of personality in its concrete conditions. We have a more workable idea of " personality " than of " soul," so far as we can make the distinction at all. For the former leaves open the inclusion of corporeity in its meaning ; the latter is defined in contradistinction to corporeity. As to personality, we understand what we mean when we speak of its integrity, and express a belief that that integrity will be maintained in the future life. We have transcended the qualified hope, " *Non omnis moriar*," unhampered by the premature inclusion of the physical vehicle in our terms. This will remain a corollary, however closely following. In any case the person is to us a term more ultimate than will, feeling, desire, or thought—more ultimate because more concrete. And when, on the other hand, we consider how little we know of matter, and how indefinitely wide are its

[1] *Ibid.*, p. 372.

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possibilities, we shall be the more ready to let the problem of corporeal existence take care of itself. If imageless thought, or any other abatement of what we demand *prima facie* for our psychical integrity, proves, upon consideration, to be adequate to that demand, so let it be. But if not, surely it is better to assume that matter is not restricted to one plane, and narrowly circumscribed in the range of its vibrations, than to take abstract terms—such as thought or will—rather than the more concrete, as the units of discourse. Between the conception of spirit as following matter, and that of spirit as separable from matter, there is at least one other: that of matter as following spirit.

James' theory of Self as shading off into all its physical context, even our clothes and our possessions, gives us a hint that is relevant to our present purpose. "Resemblance," he says, "among the parts of a continuum of feelings (especially bodily feelings) experienced along with things widely different in all other regards, thus constitutes the real and verifiable 'personal identity' which we feel."[1] The negative side of his teaching on this subject is not at all accepted in this article, but we may learn from him to work out from an idea of self based on experience, *extensive*—one might say—not merely intensive, physical as well as spiritual; and then if material embodiment, of some sort or another, really seems necessary to preserve the concreteness of the idea, we certainly shall not suspend our conclusions till the completion of the evidence for the perisprit or astral body.

The special application of these remarks to the Will is not far to seek. We define it as self having power over—or acting upon—self. It is thus an *aspect*, not properly a part or function, of the entire personality. Schopenhauer has familiarised us with the idea of pure will, and others since have regarded will as the nerve of personality. But the will is, after all, only the fact of willing, and it is the person that wills. And if the will is free, the person is free: there is no meaning in the freedom of a bare will.

When we affirm that the will itself is free we seem to be influenced by the following consideration. The simplest proposition is that *we* are free, or, if a question, "Are *we* free?" But then we discover a difficulty. Freedom suggests the absence of prison-bars, of fetters, of human tyranny, of confining circumstances, and so forth; and its absence means that we are actually prevented from doing *what we will*. But the whole question concerns the meaning of will, and presupposes some scope at least for its exercise, be it only the bare initiation of movements instantly thwarted. So we are led on to say: "Yes, but this is not what we want to know; this is not the philosophical question at all; we are aware that persons may be, relatively speaking, free or not free, but we want to know whether, granted some scope—

[1] *Principles of Psychology*, Vol. I., p. 336.

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or at least the belief that there is some scope—the apparent choice and initiation of action is really exercised by the person in question, in virtue of an autonomy that he possesses independently of nature and even of God. In other words, is the will *in itself and as such* free?" The problem may be stated in a hundred different ways, but this may suffice to show how we are led to talk about the freedom of the will rather than of the person: because a free person suggests a liberated slave, or a boy out of school, or a man whose private means raise him above many limiting necessities.

And yet we rightly speak of the person. But in what sense can he be otherwise than free? We are not now concerned with the different theories that deny or explain away freewill, with Determinism, materialistic or idealistic, monistic or pluralistic. There is a sense in which, from the point of view taken in this article, one person may be, on the higher levels, a slave, and another enjoy a large freedom, with all sorts of gradations between. If, then, freewill is real, and yet is variously limited in different persons, what is the principle of limitation? It is certainly something inward and belonging to the soul itself, yet again it is something the soul may resist, and by the very fact that it does limit its freedom, is also in some sense alien and external.

We return to our definition, "power over oneself." That our personality has different levels, between which there can be interaction, is certainly the *prima facie* testimony of experience. Croce maintains that this is a delusion, and that St. Paul, for instance, in his account of his spiritual conflicts (Rom. vii, 15-25), mistakes the alternation of states for the co-presence of two warring tendencies. Victory over self, self-control, and all such phrases, would, on this principle, be metaphors, and very strange metaphors, too, to describe mere change and oscillation.

But it is not necessary here to consider this view of personality in the philosophical system to which it belongs. A direct appeal to self-consciousness—the final court of appeal in all that relates to the soul—must suffice. We are unquestionably conscious not simply of changing moods and unstable equilibrium of impulses, but of resistance, not outward but inward, when we are endeavouring to live in harmony with our highest ideals. I do not see how it can be maintained that this second conviction of self-consciousness is merely derived from the first. Or, indeed, how anything to which it bears witness can be other than real: for only inference, not experience, can err. Of course, it may be replied that we often confuse our inferences from experience with the experience itself, and that the data of self-consciousness may be misinterpreted. Now it is obvious that we may argue wrongly from what is in itself true, but it is hard to understand how data can be essentially misinterpreted. If not self-evident,

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how are they data at all? Now the sense of inward resistance (which cannot mean anything but resistance from lower levels of our own nature) is surely a datum. Resistance to a pure not-self no more resembles moral effort or progress, or anything that we could call (however metaphorically) self-mastery, than the effort of a dog to break loose from its chain.

It may be said that in reality we resist, in such cases, not strictly self, but the after-effects—bad habits and perverted tastes—which previous wrong-doing or wrong-thinking, or neglect, has left behind in us. But still that which we resist is not merely certain dispositions in the brain. For the brain, regarded thus in and by itself, would be simply an external obstacle like any other external obstacle. The resistance, however nearly automatic it has become, is still psychic: it has still the activity of spirit, not the inertia of matter. Mere matter, or mere physical force, cannot deflect the movements of spirit in any sense that concerns its moral self-culture, its progress, its fidelity to ideals. Neither can the opposition of other wills. Nothing can alter the character of the person, except with the co-operation of his own lower centres.

A certain difficulty may now be noticed, which may, in some minds, render this idea hard of acceptance. Can self really be divided? These lower levels of psychic activity, must they not either *be* our very selves or not? When we speak of self-control must this not be somehow a metaphor, rather than literally true? For it does not seem enough to affirm that two *parts* of the soul conflict. For in that case the ultimate victory would rest, not with the soul as such, the true man in the integrity of his being, but with a part of him; and the sense of internal conflict surely means something more inward and more paradoxical than the opposition of two entities merely included in one larger. And therefore to regard the enemy as "myself, yet not myself," may always convey to some minds a suggestion of logical impossibility.

But just here lies the mistake. We can do justice to no spiritual philosophy if we make the rigid, mutually exclusive terms of formal logic our units of discourse. In logic "A is either B or not B," simply because A is taken at the outset to represent the self-contained and impenetrable unit of discourse every question about which must be answered by aye or no. But there is no obligation, on the face of it, to apply this method of description to a spiritual entity. No contradiction is involved in the refusal to submit to any such constraint. And the testimony of consciousness, as I believe, demands this refusal. We must accept the paradox, "It is no more I that do it but sin that dwelleth in me," as a fair statement of half the truth. The very word "sin" seems to contradict the statement, for it implies some measure at least of personal responsibility. But the contradiction is not in logic, for the very reason that it lies deeper than logic: it is the

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diremption of that very centre of personal identity which is the ground of all thought and all logical process.

The application of the whole foregoing discussion to the question of the future life should now be obvious. I have tried to show that the essence of freedom lies in self-direction and control, real and not predetermined. If the individual is either the product of lifeless matter and energy, or is buta phase or function of universal spirit, there is no meaning in freedom. Even if that universal spirit has set us to turn upon our own axis, still there is no freedom unless it (or He) has really given to us our own souls. That is the first position.

The second is this: that self-direction is neither a mere question of the frontier of mind and body, nor yet a remote ideal attained only by devotees or other exceptional persons. It is graded right up from the one end of the scale to the other. Those, therefore, that would prove immortality merely from the immediate relations of mind to body, and those, on the other hand, who rely upon mystic experiences, both fail to complete the argument. For without some conception, however imperfect, of the ideal personality, or of what constitutes it such, we miss the key to the understanding even of the lower. Those who deal with the subject of moral and spiritual self-culture always, and rightly, tend to regard it not simply as an advance into an unknown land, a progress towards a purely external ideal, but as a self-realisation, self-finding, or the recovery of the real clue to one's life; or under some such form of thought. Immortality, though it may not be inalienable, is not a mere "find" or distant prize.

Lastly, it was necessary to see clearly that the will is nothing abstract, but, as it were, the person over again, the self regarded further back, the soul within or behind the soul. The higher will-centre that controls the lower will-centres must, like these, be inseparable from consciousness, thought, feeling, and desire. And if we could represent to ourselves the perfected personality somewhere beyond death, surely we should see gathered around it even the counterpart of the sights and sounds that give joy to us on the earth-plane.

But now I may deal with a possible objection, or difficulty, which has special reference to the second position in our summary, and might have been dealt with at that point but that too long a digression would have broken and obscured the outline there sketched out. Granted, it may be said, that moral progress is self-realisation, that it moves towards a goal envisaged, so to speak, by the Creator at the beginning, that it seeks the solution of the meaning of our several lives, yet does this imply that even before that solution is found there is that in the soul that must be immortal? Is not just the immortality itself part of what we seek? When we talk of finding our true selves, surely this is not to be pressed to mean that we have only to uncover a perfect self in us that has always existed?

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This objection is certainly a sound warning against a hasty statement of the doctrine. Yet, as an objection, I think it can be shown to be untenable.

We might answer it—so far as relates to the simple fact of a future life—by reference to the lower levels of freedom. When once we have recognised freedom on what I have called the A level, we can trace its inferior forms much more clearly on the lower levels, and there at least it is not a mere ideal, but a fact. The total relation of soul to body is involved. And this familiar problem is much more easily understood when we find our clue in the victorious soul that dominates not mere dead matter, but that alliance of matter and mind that St. Paul calls the "psychic man." The very resistance of these lower centres to what is above them, as well as their dominance of what is below, expresses that freedom.

But, none the less, it is well to discuss the objection on its own ground. We may state the question thus: Is the higher selfhood at which we aim, in its essence, potential only, or is it actual? Granted, as we must grant, that it is not unaffected by the issue of the conflict, are we to say that it is only a plan and an ideal, or that it is a reality striving to emerge into fulness of activity and to win the whole of its rightful inheritance?

It is impossible to set forth my full reasons for believing in the latter alternative, but there is one line of thought that may perhaps be sufficiently worked out for our present purpose. The whole meaning of spiritual effort and moral conflict is to realise in the *particulars* of life the demands of a will that has already accepted the claim of the higher ideal in itself and as a whole. That this acceptance is not merely an otiose homage rendered to goodness in the abstract is proved by the very fact that there is some attempt to carry it out point by point. The second of our two alternative interpretations of the A level is undoubtedly supported by analysis of the experience.

Why is that interpretation not more obvious? For a very clear reason. It is of the very essence of spiritual conflict to be dissatisfied —to think of the goal as beyond and above us, not to tell ourselves continually how splendid a thing it is that we are seeking it. We strive "not as though we had already attained," because to rest upon the will to attain as in itself virtual attainment would be to stultify that very will. Martensen, the Danish theologian, who, though a Lutheran, accepted what is known as the doctrine of Final Perseverance, makes a notable remark, which, quite apart from its more special theological applications, is well worth quoting in this connection. He says that the possibility of falling from grace has a certain subjective validity for the natural man. To turn it the other way, we can only rightfully use the thought of essential victory to console us against the discouragements and defects if we so think of it as to make the very idea of sin

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contradictory and absurd to us, and to stultify the first advances of temptation. This is surely the thought behind St. Paul's words: "How shall we who died unto sin live any longer therein?"

But we are not discussing the matter from a strictly theological standpoint, or with reference to special religious tenets. And there is no intention to maintain here anything more than is necessary to the argument, namely, that the higher self is behind as well as in front of moral effort, and that this effort can be viewed either from the side of the lower or from the side of the higher, either as a goal to be reached or as the struggle of what is greatest in us to break the barriers that close it in.

Now there is one special hindrance among all the many hindrances to moral progress which, in the nature of the case, occupies a special position, and affords special matter for consideration that is relevant to our present purpose. A well-known divine, I believe, decided, as a result of definite investigation, that the greatest reason for backwardness in the spiritual life was indolence. There is much to be said for this conclusion, and at any rate indolence, or lack of sufficient endeavour, must hold a peculiar place where the whole question is that of effort against obstacles. Let us note where this is relevant for us.

Indolence is one of the defects against which we strive. It is also, unlike the others, a defect of the striving itself. It is at once toughness in the wood and bluntness in the saw. It is objectively one of the obstacles to be overcome, and at the same time it is, subjectively, the fact of not resisting those obstacles with sufficient whole-heartedness or faith. Now effort to overcome lack of effort is, so to speak, effort at a higher power. It takes us to the very foundation of the aspiring self in us. And for that very reason it gives us, over the edge, a glimpse of the self whose vindication and establishment is goal of the aspiration.

Note next that very strenuous endeavour often meets with almost complete failure, at least in respect of the special immediate object we have in view. We seem to hurl ourselves mainly against a door that will not burst open. But how can this apply to the effort against indolence, since indolence is not merely failure in the struggle but grievous defect in the very effort itself? And yet we know that there is such a thing as hard struggle against indolence: and by this I mean not merely against unwillingness to get out of bed, or do one's work thoroughly, or to undertake new responsibilities, but indolence in the pursuit of the inclusive object, spiritual victory and attainment. To strive hard against not striving hard is a paradoxical undertaking, but many of us know quite well what it means. It was George MacDonald, unless I am mistaken, who said that somehow he had never been able to do his best. This remark referred to literary achievement, so is not strictly applicable to moral endeavour; but it is closely

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parallel, and helps to illustrate our point. To say "there is that in me that strives against my sin" is much less than to say "there is that in me that strives against my slowness to resist sin." Here we really catch an elusive glimpse of the higher self, because otherwise striving against indolence as such would be a contradiction. We escape from the logical contradiction only when we fall back on the moral and psychic contradiction, the stress between self and self, of which Romans vii. gives the classic expression.

I say an "elusive glimpse," because to fix our eyes upon that in us which strives even during and against our indolence in the strife would either give us final victory or cause the sword to drop from our hold. But easy victory is ruled out by the fact of the warfare, and soporifics are denied us by its laws. Therefore, whether the thought of it be considered as helpful or as harmful, the *fact* of this higher self that strives only for freedom, not for being, is not discredited by its obscurity, or the less solid and real because it is not steadily luminous before the eyes of all.

A few concluding words on the general treatment of the subject. It may well be that points have been assumed in the course of our argument which for some would require proof. But this is hardly avoidable in dealing with so large a subject in a small space. It is something even to trace one line of thought and see whither it carries us: for the exposition of a philosophical doctrine, and the carrying it out to further consequences, is in the long run its best defence. If we can show the connection between Indeterminism, in the form here set forth, and life after death, we gain, in so doing, a deeper understanding of both.

Nor is there the least need, in spite of current prejudice, to apologise for indulging in metaphysic. To many, the merely empirical arguments for survival, or what is called the moral argument, seem the most convincing, but, in spite of all demur, the writer of this article is prepared to maintain that here, if anywhere in the sphere of pure reason, metaphysics must be supreme. We cannot rest on probabilities, analogies, pious hopes at this central point. We *must* ask: "What do we mean by this self or soul, whose immortality is denied or affirmed? Is the burden of proof on the side of the denial or the affirmation, or on neither rather than the other?" And many other questions which touch metaphysics on the one hand and common sense on the other.

But here I would hasten to add that the metaphysic we demand is not speculation, but the *felt* metaphysic that has its roots in experience and returns back upon experience established and enriched.

Thinking upon such a subject is not simply a matter of working out arguments. Its deepest function is to join with other influences in lifting our minds to the plane on which we see and feel our immortality. A false metaphysic is behind many of the assumptions even of persons

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not at all philosophical; and it is the business of the true metaphysic to remove the false. For false ideas not only lead reason astray, but block insight. And, personally, I believe that one of the false ideas which is partly the effect and partly the cause of much restricted and perverted thinking is Determinism; that when we have grasped the real meaning of our souls' autonomy there are vistas open to us where else there were a dense thicket; and that the chief of these is the vista that reveals a world beyond not only the dissolution of this body, but all possible death.

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EVIDENTIAL MATTER OF PRACTICAL IMPORTANCE

By (Una) Lady Troubridge

IS there any investigator of Psychical Research who has not been asked the following question:

"Have you ever received any information through a medium that was of any real use to you or to anyone else?"

During the four years that my friends and acquaintances have known of my interest in psychical investigation I have grown to expect this question as inevitable. It has been put to me by people of all ages and both sexes; it has been asked in every shade and degree of tone and manner. There is the questioner whose accents announce the triumphant conviction that no affirmative answer is possible, and whose superficial knowledge of the subject, culled from novels and the daily Press, limits Psychical Research to mainly or entirely fraudulent physical séances at which musical boxes float in the air, tambourines are shaken, knees are slapped, and voices devoid of any apparent identity proclaim from total darkness their satisfaction at their post-mundane condition.

There is also the orthodox Roman Catholic questioner, with whom, as a Roman Catholic myself, I frequently come in contact, and who is wrapped in a garment of obediently docile ignorance of all matters which Holy Church (who wisely legislates for the masses and not for the individual), pending more conclusive evidence, views with suspicion; or who comes to me hot from Father Lepicier's cheering picture of a discarnate condition where we shall all float in nothingness bereft even of those faculties which we possessed in this world, and where apparently, as Father Lepicier further assures us, only the powers of evil are able to supply the necessary energies for attempted communication with our bereaved friends or relations. This type of questioner generally conveys the impression of hovering ecstatically on the fringe of forbidden and therefore enthralling things, and shows either incredulity or disappointment when one is unable to furnish any evidence that either Mrs. Piper, Mrs. Thompson, or Mrs. Leonard anointed themselves with witch's salve or had dealings with the devil.

Then there is the genuine novice, but unprejudiced inquirer, who may be awakening to an interest in the subject from impersonal and purely intellectual reasons, or who may have suffered a bereavement that has for the first time aroused in him speculations as to whether

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any communication with the departed can be possible, and, if possible, legitimate.

But all these types of inquirer, and their variants, which are legion, have one sentiment or expectation in common. It is rare to find an individual who does not feel that if those who have passed on to a future state are to communicate with us at all, they must in any case be expected to benefit their correspondents in this world.

The demands made upon them vary, and exhibit a complete disregard in most instances of the known characteristics of the purporting communicators prior to bodily death. Some of my interlocutors expect a certain elevated standard of spiritual guidance—others yearn openly for "wrinkles" that will supplement by supernatural means their intellectual capacities, and furnish a short cut to high achievements. Others yet again frankly desire assistance in purely material and financial matters, and cannot conceive that their late—not greatly lamented—uncle or aunt should communicate with them and yet disregard so vital a matter as their interests in the impending Grand National, hints as to investments likely to prove lucrative, or a warning that the kitchen chimney will shortly catch fire.

I do not find as a rule that answers in general terms find much favour with my questioners, though there are many such answers which should justly receive consideration. There is a prevailing tendency, where there is any belief in survival at all, to treat the departed very much as the uneducated Latin or Russian treats the Saints; that is to say, as folk who have been removed to another sphere for the sole purpose of remaining within earshot of earthly needs and demands, and of placing their increased powers at the disposal of the importunate of the earth.

At one time I used to answer these eternal questions by patiently expounding certain generalities, as, for instance, that the scientific investigator, being mainly concerned with the obtaining of evidence susceptible of verification, is liable in his records to pass over without comment, or at any rate to lay little stress upon ethical matter which, while quite lofty and interesting in itself, might nevertheless emanate from the medium's mind, and, except in those cases where it denotes accurately the opinions or characteristics of the purporting communicator, cannot be put to any test of authenticity.

I have also pointed out that my investigations (as, indeed, is the case with most genuine investigations with genuine mediums) have led me to intercourse with ostensible communicators of no highly exalted type, but merely the deceased friends or relations who lived on this earth the lives of ordinary people, compound of good and bad qualities and impulses, some a little better than others, but none of them aspiring during their lives to abnormal saintliness or world reformation. Few of us can honestly claim the right to expect

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communications from elect spirits, and failing such a right as might be inferred from close friendship, relationship, or a community of high spiritual aims, it is obvious that nothing is required beyond the medium's hysteria and the sitter's vanity to account for the frequent visits of Saints Peter and Paul, not to mention even less excusable masquerades of holiness, to spiritualistic séances.

I have often pointed out to my interlocutors that we all have valued and esteemed living friends of many years' standing who have never offered us a word of advice on matters spiritual, ethical, or material, and whom we have not valued less, but possibly more, for this forbearance; friends who have never dwelt much, if at all, upon elevated matters, and that we have really no adequate grounds for expecting that they should start doing so the moment they leave their physical bodies, or that simple folk, young and old, whom we have known during their lives as chiefly interested in simple matters and workaday pleasures and troubles, should, in the twinkling of an eye, return to us charged with theories and maxims regarding the deeper questions of the Universe. Even the Scriptures allow of a hypothetically long interval before the "last trump" shall be the signal for a universal spiritual change.

I have also vainly pointed out the chaos that would result were certain privileged persons to receive wholesale supernormal information regarding future mundane events, and the total collapse of all individual effort that would be likely to ensue were every student enabled to rest on his oars secure in the certainty that Demosthenes, Newton, Galileo, or Titian, as the case might be, could be relied upon to supply the ideas and do the work at regular and frequent intervals.

And none of these generalities have sufficed to satisfy my catechisers, many of whom have given me clearly to understand that they retained the unaltered opinion that a departed spirit, in order to qualify as a seemly and acceptable communicator, must conform rigidly to pattern, regardless of such a detail as former identity; must forswear all frivolity or humour—these above all, even in a discarnate Dan Leno, would be out of place—as unworthy their advance in status; must, indeed, discard as *infra dig.* many characteristics and qualities for which they were loved and appreciated in life, and, if unable to achieve a lofty eminence as spiritual guides, must at the very least give evidence of some supernormal power of aiding their survivors.

It is partly for this reason that I feel I am likely to find a fair number of readers among these inexperienced inquirers as well as among practised investigators, to whom a good piece of evidence is always welcome, who will be interested if I can relate an instance where I have received information given through a medium, and purporting to come from a deceased friend, which was of definite and practical use to me, conveying accurate knowledge of an important

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fact unknown at that time—so far as it appears possible to ascertain—to any living conscious mind; certainly unknown to me at a time when my ignorance of the fact in question might have been fraught with the gravest consequences.

The incident to which I refer took place on December 27th, 1917, at a sitting which I took on that day with the trance medium, Mrs. Osborne Leonard. I was accompanied to this sitting by my friend and fellow-worker, Miss Radclyffe-Hall, who took full notes of everything that was said either by the medium or myself.

Mrs. Leonard is by now almost too well known to the public as well as to investigators to require any introduction. For those few readers who may not know of her by name it suffices to say that her capacities and her integrity have been put to the severest possible tests, not only by Miss Radclyffe-Hall and myself, but by many other competent investigators. She and Mrs. Piper are the only two professional trance mediums whom the Society for Psychical Research has ever officially retained and made the subject of an organised investigation. Those who would learn more of Mrs. Leonard's trance and of her control, Feda (the personality who claims to be an independent entity acting as interpreter between the incarnate sitter and discarnate communicators, and to speak through Mrs. Leonard's organism when the latter is in a trance condition), can study her phenomena in Sir Oliver Lodge's book *Raymond* and in the Paper by Miss Radclyffe-Hall and myself which appears in Part 78, Vol. XXX., of the *Proceedings* of the Society for Psychical Research.

As a matter of fact, with regard to the incident which I now propose to relate, Mrs. Leonard's integrity is of very little importance. This because, so far as can be ascertained, there was at the time when she made the statements with which I am about to deal no living person who could have supplied her with the necessary data, even had she desired to obtain them by fraudulent means. While discussing such a possibility, I must not fail to make it quite clear to my readers that both Miss Radclyffe-Hall and I are as convinced of Mrs. Leonard's integrity as of our own. The question of the possibility or impossibility of her obtaining information by fraudulent means is raised merely with a view to giving a further value to the present incident by emphasising that in this particular case it is my opinion that even deliberate fraud, of however skilful a nature, would not have assisted the medium.

The incident concerned my daughter, Andrea, who at the time of the sitting was seven years old, and the purporting communicator was my friend and cousin, who appears in the aforementioned Paper in S.P.R. *Proceedings* under the initials A.V.B. At the time of the sitting with which I am dealing A.V.B. had been dead one year and seven months, and prior to her death she had known and taken a friendly interest in my little girl.

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If we accept the possibility of a surviving A.V.B. retaining a power of communication with incarnate friends, and as being the communicator of the facts which follow, then we may with reason attribute to her the double motive of trying to warn me and thus save me from avoidable trouble, and at the same time to benefit a child whom she had known and liked.

Another point, less easy of even hypothetical explanation, will have to be discussed further on; namely, the means whereby the information communicated to me could have been accessible to any mind, even that of a discarnate A.V.B.

In December, 1917, when I took the sitting in question, I was not anonymous to Mrs. Leonard. The question therefore arises, in connection with any data referring to the child given through Mrs. Leonard, as to how much normal knowledge she can be supposed to have possessed of the child in question, and whether she had ever seen her. As a matter of fact, throughout the whole period of our studies in Psychical Research, both with Mrs. Leonard and with other mediums, Miss Radclyffe-Hall and I have always borne in mind that any mention of Andrea purporting to come from the communicator A.V.B. would be of evidential value. We had therefore been particularly careful never to mention the child, in the hearing of any medium. It was only a few weeks prior to the sitting under discussion, when circumstances rendered it inevitable that Mrs. Leonard and ourselves should be temporarily established at Datchet, that we decided to tell Mrs. Leonard our names, and that we had taken a house at Datchet and should be living there with my child, whose age or sex were not mentioned to her. The child and Mrs. Leonard had actually spent only three days in the same village prior to the communications being received concerning her. As regards the possibility of Mrs. Leonard's having seen her, although Mrs. Leonard's cottage was at some little distance from our house, it must of course be assumed for evidential purposes that Mrs. Leonard may have done so and identified her, as there were three days during which this might have occurred, although I personally do not think she had done so. It must, however, be assumed that, had Mrs. Leonard wished, she could easily have ascertained that I had one little daughter, and have acquired a general idea of the child's age, height, and appearance. Under these circumstances no evidential value can be ascribed to the larger part of an elaborate description of the child which was given by Feda on December 27th, 1917, as a preface to the conveying of more important matter. For this reason I shall not quote that part of the sitting which contains the description of the child's personal appearance and an apparent attempt to spell a pet name by which she is called at home. Nevertheless, in fairness to Mrs. Leonard, it must be clearly stated that this description was remarkably detailed and accurate, and was not such as could have

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been given by anyone who had caught a mere casual glimpse of the child. In fact it contained, among many points indicating a close acquaintance with her appearance, the accurate mention of one characteristic which, although present, had remained unnoticed by Miss Radclyffe-Hall throughout the whole of two years during which she had seen the child constantly, almost daily, and under every circumstance and condition. This peculiarity was mentioned by Feda in the following words: "The chin is a little rounded, a tiny bit tilted, it comes a bit forward. Oh, *and it's got the beginnings of a little mark here.*" (Feda touches the middle of the chin indicating where a cleft or dimple would be found.)

Now the mention of this "beginnings of a little mark" in the child's chin is interesting for several reasons. Firstly because, as has already been said, this characteristic, while existing in Andrea, is so slight as to be almost imperceptible. It is only visible in certain lights, and, in fact, one of the child's relations at one time maintained to me that the cleft did not exist, and only perceived it when I placed the child's head in a light that brought out the peculiarity. Another reason why the mention of this cleft is of interest is that I had not discussed it with many people, and in my opinion it can hardly have come to the medium's knowledge by any normal means. But there is a third point of view from which the mention of this cleft in the chin is interesting. I have said that Miss Radclyffe-Hall had lived for two years in close contact with the child without remarking it, but it is a fact which cannot be too clearly emphasised that I had for the first time pointed out the cleft in Andrea's chin to Miss Radclyffe-Hall, and had discussed it at some length with her, less than a week before the sitting of December 27th, 1917. What is therefore the connection, if any, to be deduced between the fact that this characteristic of the child's had been uppermost in the minds of both Miss Radclyffe-Hall and myself a few days prior to the sitting, and the mention of it, spontaneously, by Feda? In this case coincidence can hardly be stretched to serve as an explanation, and as neither I nor any member of Andrea's family have a cleft in the chin we cannot suspect a chance shot at a hereditary trait. It must be confessed that, although both Miss Radclyffe-Hall and myself admitted of the possibility of A.V.B. having overheard our discussion and made use of what she had heard as furnishing a valuable clue to the child's identity, we were inclined to lean to the more obvious explanation of telepathy between the medium and the sitter, between the medium and the recorder, or between the medium and both sitter and recorder.

Moreover, most investigators remain human, and the fact that we were most anxious to disbelieve in the evidential accuracy of the information which was subsequently received at the same sitting, and were therefore inclined to grasp at anything in the sitting which would

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further our wishes, strengthened our tendency to put down the entire contents of the sitting as a combination of telepathy from ourselves to the medium, combined with a certain amount of unconscious elaboration and embroidery on her part.

Subsequent events have, however, led us to feel that we fell deeply into the perhaps not uncommon error of riding telepathy to death, for since the sitting did most certainly include accurate statements which could not be accounted for by telepathy, not only from anyone present, but from any living conscious mind, but which might conceivably have been acquired from a discarnate mind possessing faculties so far unknown to us, there appears to be no very adequate ground for the assumption that the mention of the cleft in the child's chin did not originate from the same source.

Prior to the personal description of Andrea, Feda had remarked that the description which she was going to give of a child referred to someone who did not feel well. She added that the child didn't look ill to her, and the sitting went on as follows :

U.V.T. : [Myself] Does Ladye [A.V.B.] think it's ill ?

F. : No, but she's been anxious because she doesn't think it's been well ; yes, she is anxious.

U.V.T. : Can't you get from her what's wrong ?

F. : What is it, Ladye ? [Feda touches the small of the medium's back and moves her hand downwards.] Feda doesn't know what it is. Ladye can't get that quite, but she thinks there is something wrong. Wrong now, Ladye ? Yes, she says wrong now. Not only one thing, more all over, but it's as if Ladye thinks there's something wrong just about there. [Feda moves her hand about vaguely all over the medium's back.] Wait a minute, Ladye is trying to move Feda's hand to show where it is. [Feda finally places her hand on the medium's back on the left side exactly at the base of the left lung.] Something not quite right there.

M.R.H. : [Miss Radclyffe-Hall] : But how is it that Mrs. Una would not have known about this ?

F. : Ladye doesn't know ; she says she thought Mrs. Una did know that the child was not quite all right.

M.R.H. : She didn't know anything serious was the matter.

F. : Ladye says she's not going to call it serious if you are careful. She says she knows you are careful. But she says you are to be awful careful of draught. She says that there *is* a draught where the child is. Ladye has felt the draught.

U.V.T. : We must move the bed.

F. : Ladye says it's only a weak spot, and she'll grow out of it ; it's *there*, Ladye says. [Feda again touches the left side of the medium's back in exactly the same place as before, at the base of the left lung.] Look, Mrs. Una, just here.

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U.V.T.: Yes, I see. Are you sure of the exact position, Feda, it's very important ?

F.: Yes, Mrs. Una, it's just here.

M.R.H.: Are you sure it's the left side ?

F.: Yes, Ladye quite sure, the left side.

U.V.T.: We've always thought that the child was so strong.

F.: She says, in every other way, yes, but you must be careful, she says.

M.R.H.: Does she think the child should go to a specialist ?

U.V.T.: She certainly shall go at once.

F.: Ladye says, supposing she goes, he couldn't say that anything is there, but she says if he spoke the exact truth he would tell you to be careful. Ladye says the child has a wonderful constitution, and that if you are careful of cold now she will be wonderfully strong. She is sure he will tell you just to be careful. She says that they don't always tell you in time. *She* tells you *before* it's there. She says she wants to tell you she's sure there's no germ *whatever*; she says that you must only be careful, but that there *is* a draught where the child is. She says, keep her warm about the body, Mrs. Una, round here. [Feda indicates abdomen and loins.] And about her legs. She says there's another reason that has to be taken into consideration; wait a minute; when the child was young something happened which might have left a weakness behind, and she wants you to know that your impression was right to guard against this. She says that there is nothing to cure, only a weak spot to guard. She says something happened a long time ago which paved the way for care to become necessary.

M.R.H.: But surely she approves of plenty of air for the child ?

F.: She says yes, but never let it feel cold; air won't hurt it, but she says there's a draught, a draught; it seems to come from the door, Ladye says; it sweeps across from the door to the window.

In commenting upon the foregoing extract, it appears to me of primary importance before entering into the verification of A.V.B.'s statements to discuss how far we are justified in calling in the hypothesis of telepathy from someone present to account for the whole, or for any part, of the statements made. It is important, for instance, to make it clear whether or not I and Miss Radclyffe-Hall were aware of anything in the child's condition which could cause anxiety on our part regarding her health. It will be noticed that Miss Radclyffe-Hall protested against the suggestion of there being anything wrong with Andrea. The facts at the time of the sitting were as follows. Some months previously the child had undergone the slight operation of the removal of tonsils and adenoids; this was decided upon in consequence of a prolonged tendency to colds and a month of tiresome bronchial cough. I had worried to some extent over the event, but merely because the child had always been so robust that any indisposition on

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her part was unexpected, and was rather unreasonably held by me to "spoil her record." Just prior to the sitting I had been feeling that she was slightly off colour, and a local doctor, who had been called in by me in consequence of a quite unfounded apprehension that the child had caught whooping-cough, had also been asked by me to suggest a tonic. This he refused to do, asserting that there was no need for it, the child being in perfect health. On that occasion, namely on December 16th, 1917, in making his general examination of the child as a new patient, he sounded her lungs, and rather worried me by remarking that at the apex of one of the lungs he had noticed a sound that suggested what he termed "puerile breathing" (a term unknown to me), but that further examination had revealed that both apices sounded exactly alike, and that all was more than well. It is, however, a fact that there had for a moment arisen in my mind anxiety that something should be wrong with the *apex* of one lung in a child who had shown, and who showed, no sign of any such trouble. Some days later Miss Radclyffe-Hall's London physician, Doctor Joseph Birt, called to see her. This gentleman is also my doctor when I am in London, and has been my little girl's principal medical attendant throughout the usual vicissitudes since her birth. In the course of conversation I mentioned to him the incident of the country doctor, remarking that the whooping-cough had luckily not materialised. Doctor Birt remarked that he had never heard the term "puerile breathing," but that the child, who had quite recently been his patient subsequent to her adenoid operation, and whom he had examined thoroughly three weeks prior to the sitting, was perfectly all right in every way.

It must here be stated that Doctor Birt is not only a well-known practitioner, but one in whom I have always had the very greatest confidence; he was originally recommended to me by a celebrated specialist as being "the best general practitioner in London." This is a point which should be borne in mind in view of the fact that it was Doctor Birt to whom I took the child after the sitting with which we are dealing, during which A.V.B. had communicated her anxiety concerning her health.

It will thus be seen that there were some grounds for assuming that Mrs. Leonard might have caught from my mind telepathically that I had recently undergone a trifling anxiety regarding my child's health. Though if we are to assume that a knowledge of this slight anxiety was telepathically accessible to her, she might equally be expected to have acquired the knowledge that my anxiety, trifling as it was, had been allayed. This, however, she was apparently unable to do, for although Feda says that the child does not look ill to her, and although, as will be seen, the recorder protests repeatedly that the child is strong, etc., and that I do not know of any illness, A.V.B.

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is unshaken in her statement that there is something wrong—wrong now, something requiring care—and the exact seat of the trouble is indicated clearly, definitely, and repeatedly, in spite of a cross-questioning by Miss Radclyffe-Hall and myself which might have been expected to evoke some hesitation or hedging on the part of medium, control, or communicator. The statements that care should be exercised against draughts, and that there is a draught "where the child is," are not uninteresting. We will briefly comment upon them before entering further into the verification of A.V.B.'s diagnosis. It is quite true that at Datchet the child's bed was placed in the somewhat unusual position of being in a direct draught between the door and the window. This fact might possibly have been read by the medium from my mind, but I do not think she could have acquired it by normal means, as she had certainly never entered my house at Datchet. But what is more interesting is the fact that the statement about draughts and the anxiety shown in this connection, together with the directions about keeping the child warm about the body and legs, are, as is sufficiently demonstrated by the fact of the child's sleeping in a draught, in direct opposition to all my Spartan theories of upbringing, being, on the other hand, notably characteristic of the purporting communicator, A.V.B. A.V.B. feared draughts and cold in any form, and emphatically would have pursued the policy of guarding a child by warmth and wrapping up, as opposed to my own rooted preference for the opposite system of hardening by exposure.

One other point is worthy of mention before returning to the question of diagnosis, and that is the mention by A.V.B. of there being a reason connected with something that happened when the child was young which must be taken into consideration as having possibly left a weakness behind. Something that happened a long time ago which paved the way for care to become necessary. Here, again, something may have been read from my mind which, the child's health being under discussion, would naturally call up the memory of the only two occasions upon which it had caused me anxiety. A.V.B. may refer to either of these two occasions, both of which occurred "a long time ago." She may be recollecting a very grave intestinal illness of which the child nearly died at Malta when she was two and a half years old. This illness is one which, in the majority of cases, does leave a constitutional delicacy even for years afterwards, and although it did not do so for very long in Andrea's case, it certainly left an indelible impression on my mind, a fact well known to A.V.B. during her lifetime. On the other hand, she was probably well aware that during the first six months of the war, when I was constrained to leave Andrea for four months with friends in Florence, the child suffered during that winter from a tendency to coughs and colds, a thing so unusual to her that I feel certain I must have mentioned the

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fact to A.V.B. As, however, no ill effects perceptible by any medical man resulted from this winter at Florence, I incline to the opinion that A.V.B. intended a reference to the really grave illness aforementioned from which Andrea's recovery was almost a miracle.

And now we come to A.V.B.'s actual statement of the exact place in which she is convinced that Andrea has a delicate spot, which if care be not taken may cause trouble.

Before going further, it is important to repeat that my momentary agitation regarding the episode of the "puerile breathing" had applied to the apices of the child's lungs. During my life it has fallen to my share to meet cases of serious lung trouble affecting people to whom I was deeply attached or in whom I was interested. It is worthy of note, however, that in those cases where I was in a position to know the full details of the case, including what part of the lung had originally been attacked, in no instance has the *base* of the lung been the seat of anxiety. In one case in which I was deeply interested the trouble originated as a consequence of pleurisy, for which the patient had undergone an operation between the sixth and seventh ribs under the breast. In another case suspicion centred in the apex of the lung above the clavicle, and in yet another, the most recent case that has aroused my interest, the apices of the lungs were also the cause of the forebodings. It might therefore be expected that any anxiety, however little justified, that I might have felt consciously or subconsciously regarding the child's lungs would have centred upon that part of the lung or lungs which I had known to be affected in the case of my friends, especially in view of the country doctor's reference to "puerile breathing" when sounding the apices of Andrea's lungs. Yet it will be seen, on referring to the extract from the sitting, that A.V.B., through Feda, suggests the need of care in quite a different place, namely at the back, at the extreme base of the left lung. This position was exactly indicated by Feda, who kept the medium's hand upon the spot until I had had every opportunity of accurately observing it, and of pointing it out to Miss Radclyffe-Hall, who, with the aid of the lamplight and that of a fire which was burning in the room, was also able to observe clearly the medium's movements. It will also be seen that Miss Radclyffe-Hall's question as to whether Feda was sure that the left side was the one affected, a question of a nature which might easily have tended to confuse the issue, only served to make Feda further emphasise A.V.B.'s statement that the position indicated by her was correct. It must also be noted that A.V.B. emphatically asserts that there is *no germ there whatever*, that she is speaking *before* the trouble which she fears any lack of care might render possible, and says that a doctor could not say there is anything there. She adds that with care the child will be wonderfully strong and that she has a wonderful constitution.

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Nevertheless, I left Mrs. Leonard's flat after the sitting in a very perturbed frame of mind. I discussed with Miss Radclyffe-Hall at great length that part of the sitting which had dealt with Andrea. As has before been stated, a great deal had been said that had the aspect of having been read telepathically from my mind, the material being culled from the various data concerning Andrea inevitably lying there in various strata of my consciousness, and Miss Radclyffe-Hall was genuinely inclined to the belief that an unreasonable tendency on my part to morbid anxiety where the child was concerned had affected the medium's sensitive and possibly receptive condition. She, however, quite agreed with me that under the circumstances only a careful and exhaustive examination by a competent medical man would restore my peace of mind, and I therefore made an appointment with Doctor Birt to bring Andrea to see him on the day following the sitting.

On the afternoon of December 28th, 1917, therefore, I took the child, accompanied by her nursery governess, to Doctor Birt's flat. In the presence of the governess I told Doctor Birt that I wanted the child thoroughly overhauled, and that he should examine her lungs, heart, stomach, and indeed everything about her. I added that I was always inclined to be nervous about lungs, and that I wanted the stomach and heart examined as Andrea had once said that her heart thumped, and I thought this might be due to indigestion, as she was inclined to eat too quickly.

Doctor Birt, having undressed Andrea, produced his stethoscope, and I then added, "I want you to be specially careful of the two apices at the back, because of what I told you the doctor at Datchet said about 'puerile breathing,' and also of the base of the left lung." No more was said, and the doctor made a thorough and leisurely examination of the child.

I then asked if there was another room where Doctor Birt and I could talk things over while the governess dressed Andrea. The doctor led the way to another room and proceeded to tell me that the child was splendid in every way, that her heart, stomach, and lungs were perfect, and that no treatment of any kind was necessary. He added, however, "There is just a little roughness of the breathing in one spot at *the base of the left lung;* it is nothing at all; children so often get it after a cough or whooping-cough, and their bronchials are so elastic that it soon passes, but I can hear it in that one spot."

I then asked Doctor Birt to reflect before saying that he was satisfied, saying that if he had the slightest doubt as to his diagnosis, or the slightest fear of any serious trouble, I was ready to employ every specialist in London. Doctor Birt replied that there was absolutely no necessity to call in any other opinion, pointing out that he did not even wish to suggest any treatment, and was perfectly satisfied that I

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need have no anxiety. He added, "You see, I know how Andrea lives, with plenty of pure air. If she were the kind of child who was likely to be exposed to foul air or infection, I would tell you to be careful, *as in that case that little weak spot would be a danger, as it would be liable to take any infection.*"

Throughout the above account I have done my best to quote the doctor's words as exactly as possible. I wrote them down immediately on my return home, and I was fortunately able to obtain Doctor Birt's statement that I had in no way misquoted him.

Before leaving his flat I told him quite frankly the reason for my visit to him, and being a very open-minded man, in my opinion neither over-sceptical nor over-credulous, he expressed astonishment and a considerable interest.

Less than a week later, when I had completed my record of all the foregoing incidents, Doctor Birt had occasion to visit Miss Radclyffe-Hall at her London flat. In her presence I read aloud to Doctor Birt my record of what had passed between him and myself on December 28th, 1917, and I also read him the relevant portions of the sitting of December 27th, 1917. Doctor Birt again expressed astonishment and interest, and willingly wrote a brief statement corroborating my record as follows :

Copy of Dr. Birt's Letter.

22, Cadogan Court,
Draycott Avenue, S.W.

Mrs. [Lady] Troubridge has to-day read me her notes of her sitting with Mrs. Leonard on December 27th, 1917.

I examined her little girl Andrea on Friday, December 28th, 1917, and found she had some roughness of her breath sounds over the base of her left lung. Mrs. Troubridge's account of our interview is accurate.

(*Signed*) J. BIRT, L.R.C.S., L.R.C.P.,
110, St. James' Court, S.W.
January 3rd, 1918.

My gratitude is due to Doctor Birt for the permission which he willingly accorded me to make use of his name in connection with the publication of this incident. Doctor Birt, who, I understand, has never taken any active interest in either spiritualism or Psychical Research, is to be congratulated, I think, upon his courage and open-mindedness in not desiring to hide behind anonymity in this case.

Shortly after these events, it occurred to Miss Radclyffe-Hall that a case of this kind could only benefit by further corroboration, and on January 18th, 1918, she asked the governess who had accompanied

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me to Doctor Birt with the child on December 28th, 1917, to write a brief statement from memory of that visit, and I think this statement is worth quoting in full.

Miss C. Dillon's Report.

January 18th, 1918.

On December 28th, 1917, I accompanied Mrs. Troubridge and her little girl Andrea to the flat of Dr. Birt in St. James' Court. Dr. Birt was told in my hearing, by Mrs. Troubridge, that Mrs. Troubridge would like him to make a thorough examination of the child. She asked him to examine the heart and stomach, saying that the child had complained of palpitation, which she thought might come from bolting the food. Mrs. Troubridge asked the doctor to examine the lungs also; she asked him to examine the apices of both lungs and the base of the left lung. She gave no reason for making this latter request. I noticed that after the doctor had placed his stethoscope at the base of the left lung and listened for a moment, he made the child fold her arms across her breast and bend forward. I had no idea why Mrs. Troubridge had taken the child to see Dr. Birt, as the child's cold had almost entirely left her for some days. It was not until we returned to Datchet that, during the evening of the same day, Mrs. Troubridge told me what she had been told at Mrs. Leonard's on the previous day. I then reminded Mrs. Troubridge of how the doctor had made the child fold her arms and bend forward while he listened to the base of the left lung, and Mrs. Troubridge said that she also remembered this. I had no reason to suppose that there was anything of the kind the matter at the base of the child's left lung, never having heard it mentioned before Mrs. Troubridge told me what Doctor Birt had said. I was not present when he made his diagnosis to Mrs. Troubridge, as she and the doctor left the room after the examination while I dressed the child.

(*Signed*) CARRIE DILLON,
St. Mary's Nursery College,
Hampstead.

Before concluding, there is one more point in connection with this incident which I wish to bring forward. After long discussion, Miss Radclyffe-Hall and I were satisfied that the diagnosis regarding the delicate spot at the base of Andrea's left lung had not been obtained telepathically by Mrs. Leonard from either of us. It had not been obtained from Doctor Birt's mind, as he had examined the child so recently before the sitting and had passed her as perfectly sound, his examination not having revealed to him a weakness which was

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probably not present at the time. Indeed, I think the promptitude with which Doctor Birt told me of this weakness when he did find it makes it very evident that he had not noticed it previously, and that he would have mentioned it to me at once had he done so.

The diagnosis could scarcely have been read from the little girl's own mind, or at least from her conscious mind, as she was unaware that anything was wrong with her. The possibility that the facts were read from the child's subconscious mind, that subconscious mind being in possession of facts regarding the child's physical condition that were unknown to her conscious mind, is too purely hypothetical and unverifiable to be worth discussing here, although some people may take this hypothesis into consideration.

Miss Radclyffe-Hall and I frankly saw no reason for explaining the facts in this manner, and we therefore discussed the possibility that there existed any other person whose mind might have contained consciously some fear or misgiving regarding the base of Andrea's left lung which, obtained telepathically by Mrs. Leonard, might have emerged during her trance in the shape of A.V.B.'s diagnosis.

The only person who appeared worth taking into consideration in this connection was the country doctor who had examined the child on December 16th, 1917, and who had then spoken of "puerile breathing" at the apices of the lungs. It appeared remotely possible that this doctor might have remarked something not quite normal at the base of the left lung, and failed to mention it, either because he was uncertain of his suspicion being correct, or because he did not consider the fact to be of any importance.

In order to discount the possibility of this doctor feeling a reluctance unduly to frighten a mother regarding any doubtful symptom in her child, we decided that Miss Radclyffe-Hall should write to the doctor and ask whether he could assure her, and thus enable her to assure me, that, apart from the discussion re "puerile breathing" at the apices, he would have told me had he noticed any signs of any sort of trouble, however trifling, in any other part of the child's lungs.

The doctor's reply was as follows; his signature is omitted as he has not been asked for permission to make use of his name:

Copy of Doctor——'s letter.

January 9th.

DEAR MISS RADCLYFFE-HALL,

I was not concealing anything at all when talking to Mrs. Troubridge.

I found nothing more than I mentioned, and felt confident that there was no other trouble.

Yours sincerely,

(*Signed*)——

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This letter, in our opinion, disposed of the only conscious living mind which might have communicated to Mrs. Leonard an anxiety regarding the condition of the base of Andrea's left lung. There remains, of course, the question, even if we admit of a surviving A.V.B. as communicating the fact of the child's condition and advising that care should be taken to avoid serious consequences, of how a discarnate entity obtained an insight into the physical condition of an internal organ of an incarnate child.

As to this point I have no explanation to offer that would not be purely hypothetical, and as valueless as must be any purely supposititious adventure into as yet unknown country. I have merely recorded this incident in order, as I said at the outset of this article, to give an example of information received by me through a medium, and purporting to come from a deceased friend, which information was of vital use to me.

In consequence of the sitting of December 27th, and of Dr. Birt's diagnosis on December 28th, 1917, I cancelled several plans that I had made for Andrea's immediate future; I took the extra care suggested to me by the purporting A.V.B. and by Doctor Birt, with the result that within a year Doctor Birt himself and another physician were able to assure me that the trifling delicacy at the base of the left lung had totally disappeared, and that no further precautions were necessary, as Andrea was perfectly sound and well in every way.

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IN MEMORIAM: James Hervey Hyslop

THE recent death of Dr. J. H. Hyslop has deprived the world of Psychical Research of one of its most indefatigable workers. For many years he was Secretary and the moving spirit of the American Society for Psychical Research, which owes its present flourishing condition largely to his efforts. The Society was originally founded in 1884 as a branch of the English Society, but owing to the death of its first secretary, Dr. Richard Hodgson, its activities were discontinued in 1895. It was revived by Dr. Hyslop as an independent society, forming a section of the American Institute for Scientific Research, which he incorporated in 1903.

Dr. Hyslop's training and experience in Philosophy and Psychology were such as to fit him in an unusual degree for the work he undertook. He graduated at Wooster University, studied at Leipzig, took his degree of Doctor of Philosophy at John Hopkins University in 1887, and was awarded the LL.D. of Wooster in 1902. In 1895 he was appointed Professor of Logic and Ethics in Columbia University, New York, but he resigned this post in order to devote the whole of his time to the work of the American S.P.R. He further raised a large endowment fund and, in order that the whole of this money should be applied to the work of the Society, he declined to receive any remuneration for his services as Secretary.

Dr. Hyslop's literary output was enormous. He published some seven or eight books on Psychical Research as well as others on Philosophy, Psychology, Logic and Ethics. In addition, he was responsible for a great part of the voluminous *Proceedings* of the American S.P.R., writing, for instance, the whole of Vol. XI., which describes the remarkable Doris Fischer case in 1,024 pages.

In view of this it is hardly surprising that his style was frequently obscure and that repetitions were not infrequent; none the less, his writings have been widely appreciated and must have exerted a considerable and beneficial influence upon public opinion both in this country and in America.

Dr. Hyslop was one of the doughtiest champions of the spiritistic view; he rejected with scorn the suggestion that the whole of the evidence could be dismissed as "only telepathy." In this he was perfectly right; those who attempt thus lightly to evade the obvious *prima facie* indications of the established facts only betray their ignorance and fail to appreciate the fact, which Dr. Hyslop never forgot, that telepathy "cuts both ways."

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The present writer is by no means so certain as was Dr. Hyslop that the spiritistic explanation is valid; there are many contributory causes other than straightforward telepathy which make the work of interpretation extremely difficult, and it is, perhaps, doubtful whether Hyslop allowed them their proper weight in forming his opinions. But however this may be, he possessed the very great and unusual merit of never losing his sense of proportion and his realisation of the intricacy of the problems involved. It is only too common for those who become convinced of the reality of survival and of communication to accept thenceforward, at its face value, all the pseudo-spiritistic utterances which they encounter.

Hyslop never did this; he was always fully alive to the innumerable possibilities of error and distortion which must beset the process of communication, if such there be, between incarnate and discarnate persons. In his *Life after Death* he gives the best account of these with which the present writer is acquainted.

An exceptionally interesting phase of Dr. Hyslop's work is to be found in the experiments he conducted with Mrs. Chenoweth in connection with the Doris Fischer case. It is not practicable to give a full description of those here; their essential feature consisted in obtaining through Mrs. Chenoweth material which indicated that certain of the "multiple personalities" of Doris Fischer were really obsessing "spirits." Dr. Hyslop considered that the evidence he obtained firmly established this conclusion. It is possible that he would fail to carry the majority of psychopathologists with him in this contention, but it is certain that the method he devised is a very interesting and ingenious one which we may hope to see applied to future cases.

Dr. Hyslop's work has been of immense value in promoting sane and careful study of Psychical Research in America; his self-sacrifice and industry have established the subject there on a strong foundation, and there can be little doubt that, greatly as the American Society must feel his loss, his work will be carried forward with continued success.

W. W. S.

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A NOTE ON THE RELIGIOUS VALUE OF PSYCHICAL RESEARCH

By W. Whately Smith

I WAS recently privileged to read a paper on Psychical Research to a gathering engaged in considering the subject of the Communion of Saints. The subsequent discussion showed the need for making clear how far the results of Psychical Research are likely to have a bearing on Religion and how far the two subjects are independent of one another.

There appears to be so much misapprehension on this point in the mind of the public that it may be worth while to make some attempt to explain briefly what I conceive to be the proper view.

First, then, let me say at once that I do not believe that Psychical Research, however successfully and to whatever conclusions it may be pursued, is calculated to have any direct bearing at all on Religion as properly understood. It may, and probably will, exert a marked influence on the form in which Religion is presented; it is practically certain, in my judgment, that we shall see a wholesale revision and restatement of religious dogma as a result of increasing knowledge of Psychical or Psychological science.

But Religion, properly so-called, is something quite other than a set of dogmas or even a formula for determining conduct. It is essentially a matter of our whole attitude towards life, of our point of view, of our scale of values, and I hold strongly that true religion, the right scale of values, is wholly independent of such a question as whether human personality does or does not survive bodily death and, still more so, of whether this can be proved on scientific grounds.

The acceptance of survival would indeed, in my opinion, allow us to apply an *a fortiori* argument. If, as I believe, the scale of values which is the essential feature of the Christian religion is a necessary and logical deduction from the way the Universe is organized, it will be valid even if there be no survival, and the latter, if it be a fact in Nature, will serve only to reinforce that validity.

Moreover, the question of whether a given religion is true or not is one which cannot be settled by such tests as an appeal to history or even to the accuracy of its statement of fact about the Universe. The only sound test is the pragmatic test; *that* religion is good which *works*, i.e., which fulfils the purpose of a religion. For Religion is made for Man, not Man for Religion, and the latter is of value only

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in so far as it enables him to understand and to deal with the Universe in which he finds himself; in so far, in other words, as it promotes his happiness. That the Christian religion, as preached by Christ, satisfies this test I firmly believe, and, so believing, I regard its history, its miracles, and its descriptions of facts as of minor importance. All these might be incontestable and yet it might fail to provide the right scale of values; or all might be mere inventions, and yet the religion might be true. Consequently, I should not regard the proof of the fact of survival, however rigid, as in any way directly confirmatory of the value of Christianity.

But there are indirect ways in which Psychical Research is relevant, and these I believe to be of great practical importance in view of the constitution of man's mind and the processes which lead to belief. Some of these I have discussed elsewhere (*A Theory of the Mechanism of Survival*, ch. VIII.); I have pointed out that the experimental proof of survival would deal an effective *coup de grace* to the cruder forms of materialism, which, although increasingly discredited at the present time, are still more widespread than one could wish. I have also observed that, as a general principle, the more we know of the constitution of the Universe and of the laws which govern it, the better able we shall be to co-operate intelligently in the process of evolution which one believes to be in operation.

But the point I wish to make here is somewhat more specific. If everyone were perfectly intelligent and adequately experienced, the essential standpoint of Christianity would be universally accepted; but this unfortunately is not the case. Comparatively few people regard this standpoint as the necessary and inevitable inference from experience; for most it is not a matter which they accept with the same inevitable conviction which they extend to the rising of the sun, for example. It is a belief of an order falling appreciably short of certainty.

It must be remembered that belief consists in the acceptance of a proposition and this acceptance is a simple matter of psychology which is, or should be, perfectly well understood. The cardinal principle of the Psychology of Belief, as indeed of all psychology, is that we accept those ideas which are productive of the minimum of mental conflict. As a result of our experience, our training, our upbringing, there are formed in our minds certain stable systems of ideas—stable because of the mutual compatibility of their component parts. Any idea which is in compatible with these systems provokes a conflict, is consequently distasteful to us, and so is rejected; conversely, compatible ideas which "fit in," so to say, with our previous experience are acceptable.

Thus many scientists in the past have had formed in their minds systems of ideas derived from their studies and possessed of immense

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stability and coherence. These have become co-extensive with their whole mental attitude and, in consequence, many of them have rejected as unacceptable other—religious—systems which have appeared incompatible with them.

The conclusion, therefore, is that any researches which are intrinsically compatible with the religious point of view and which become incorporated with the general mass of public knowledge are calculated to make that point of view more generally acceptable than it formerly was, and as a matter of empirical expediency the question of Survival is of the first importance in this connection. As I have said, I do not regard it as of fundamental importance to Christianity—I should equally call myself a Christian whether I believed in survival or not—but it is, as a matter of fact, commonly preached as an essential part of Christian doctrine. Inasmuch as some people find it difficult or impossible to reconcile a belief in survival with their general scientific knowledge, this fact constitutes for them a difficulty in the way of accepting Christianity.

If we can bring survival into line with scientific knowledge we shall do away with this difficulty and thereby promote that general acceptance of the Christian point of view which I at least regard as infinitely desirable.

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REVIEWS OF BOOKS

Spiritual Pluralism and Recent Philosophy. By C. A. RICHARDSON M.A. Pp. xxi + 335. 1919. (Cambridge Univ. Press, 14s. net.)

This metaphysical treatise is of special interest to all engaged in Psychical Research, because the author endeavours to show that the spiritual pluralism which he expounds enables him to offer intelligible explanations of all or most of the phenomena or alleged phenomena the investigation of which is "Psychical Research."

The author makes no inquiry into the evidences for the occurrence of the phenomena, but accepts everything from telepathy to clairvoyance, possession, psychometry and "physical phenomena" without question. One feels that he might have tried his hand at explaining these phenomena in terms of his metaphysical theory, while displaying a little more caution and reserve in the difficult evidential questions, which by the great majority of the public to which he appeals will be regarded as at the most still *sub judice*.

But this is a question of personal opinion and policy, difference in regard to which need not and should not in any degree blind us to the interest of Mr. Richardson's attempt to bring all these alleged phenomena into a connected and intelligible picture on the background of his metaphysical theory.

The main feature of this theory is that the universe consists wholly of spiritual beings or selves, the subjects of all experience and the agents in all activities. It follows from this that each human organism is a system or society of such selves constituting a hierarchy presided over by a dominant member.

To the present writer some such view of the mental organisation of the person seems to be irresistibly forced upon us by an impartial study of normal and pathological psychology. But he would prefer to hold it, without committing himself to the wider proposition that all reality is of the same nature. This latter is really a vast extension of a scientific hypothesis which aims at converting it into a metaphysical theory of the universe; and though, no doubt, the attempt to show that it is capable of such extension without logical inconsistency has a certain interest and value, it burdens the hypothesis with a vast weight of difficulty in a needless manner. When the plain man—and indeed the scientific man—is asked to believe that the whole physical universe, including all those things with which physics, astronomy, and geology are concerned, is merely the appearance to him of psychical beings of like nature with himself, he cannot be expected to swallow the proposition without great difficulty, and to suffer from indigestion if he succeeds in doing so. Indeed, Mr. Richardson himself seems to show symptoms of indigestion. He fails, I think, to present a consistent and acceptable account of the physical

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world in terms of his theory. He has taken too seriously the vagaries of Mr. B. Russell and the sensationalism of the New Realists; and is thereby led to the conclusion that "matter in the physical sense" and "the body as a particular material object" are merely "sense-data." But then, seeing that this must lead to solipsism, he rightly adds: "We must therefore postulate a ground of our sense-data, in existent entities other than ourselves," and suggests that this ground is in all cases some other subject or subjects of like nature with one's self. On other pages he tells us that the physical world is merely a logical function of sense-data; that "a self cannot simply be a logical function of sense-data"; and that "logical constructions of sense-data can never give a self." Yet it is from the facts of sense-perception that he infers or is led to postulate selves other than his own; and in another place he speaks of inorganic things not as mere sense-data, or logical functions of them, but as "individual agents of extremely inferior mentality, whose behaviour is sufficiently habitual to admit, for the most part, of description in general terms." The description of physical objects as merely logical functions of sense-data seems designed to soften the difficulty of conceiving them as psychical subjects. But if Mr. Richardson allows himself to postulate "a ground of our sense-data, in existent entities other than ourselves," why should he deny a similar liberty to the physical sciences?

This is only one example of the fact that the author's metaphysical tendency involves him in unnecessary complexities. The most notable example of this is his determination to deny all temporal attributes to the self or subject in accordance with high metaphysical convention. This results in a chapter on "Immortality," the upshot of which is that all such questions as "Shall I exist for ever or after the death of my body?" are meaningless, because they seek to apply temporal adjectives to the timeless self; and they must be replaced by the single question, "Do I exist?" And this is offered as a key "wherewith the gate to the solution of the riddle of immortality may be unlocked." Yet in spite of this we are told in a later chapter that "pluralism carries with it the assumption of this pre-existence, and the further assumption that during the latter [antenatal existence] the individual was a conscious being"; and he discusses the changes, the processes and activities of the self in time as though all that he has written of its timeless nature were a mere form of words, a libation to the high gods of metaphysic.

A further unnecessary complication of similar origin is his doctrine of immanence. The monads of which the world consists may not, in deference to metaphysical convention, be conceived simply as interacting; a ground of such interaction must be postulated, "a single, universally immanent, concrete entity, whereby there subsists between each subject and every other subject a 'sympathetic rapport.'" And this vague notion of immanence is invoked again to account for the control of the dominant monad of any organism over its fellow members. The dominant is said to be in telepathic communication with its subordinates, and also to be immanent in them. It is thus given a treble connection with them: (1) direct or telepathic action; (2) its own special immanence; (3) that connection and capacity for interaction with all other monads which it has in

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virtue of the universal immanence of the supreme entity. This multiplication of modes or grounds of interaction is not only needless, but highly detrimental to the author's system of explanaion ; for the reader is driven to feel that he has constructed a world where all things are possible, and therefore no particular explanation of any particular phenomenon is requisite or valid.

Mr. Richardson, in fact, by his denial of all temporal and spatial attributes to his monads and his assumption of their universal interaction with one another, has made a system under which explanation of anything whatever is too facile to be satisfactory ; for only in a world where some things are not possible do we feel the need of explanations of such events as we observe ; and this too great facility of explanation mars all his discussion of " psychical phenomena," and is perhaps the explanation of his seemingly uncritical acceptance of the more extreme instances.

WILLIAM McDOUGALL.

The Group Mind : A Sketch of the Principles of Social Psychology, with Some Attempt to Apply Them to the Interpretation of National Life and Character. By WILLIAM McDOUGALL, F.R.S. (Cambridge : at the University Press, 21s. net.)

Dr. McDougall is a pioneer in the field of Collective Psychology, and this book constitutes, as was to be expected, a notable contribution to the subject.

The connection of the latter with the special problems of Psychical Research is necessarily somewhat remote, but there are at least two points of contact where the inquiries may be expected to exert a reciprocal influence on each other.

The first of these is Telepathy, which is of the greatest importance to the Psychical Researcher. In this connection Dr. McDougall says :

> " A considerable amount of respectable evidence has been brought forward in recent years to prove that one mind may influence another by some obscure mode of action that does not involve the known organs of expression and of perception ; and much of this evidence seems to show that one mind may induce in another a state of consciousness similar to its own. If, then, such direct interaction between two minds can take place in an easily appreciable degree in certain instances, it would seem not improbable that a similar direct interaction, producing a lesser, and therefore a less easily appreciable, degree of assimilation of the states of consciousness of the minds concerned, may be constantly and normally at work. If this were the case, such telepathic interaction might well play a very important part in collective mental life, and, where a large number of persons is congregated, it might tend to produce that intensification of emotion which is so characteristic of crowds."

Most experienced students of Psychical Research hold that the evidence for Telepathy is practically conclusive and, in view of the foregoing quotation, it is clear that a general acceptance of this opinion would be of

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great importance for Collective Psychology. Conversely, if students of the latter subject were to find that certain phenomena strongly indicated the operation of telepathic factors, this observation would lend important collateral support to the evidence met with in Psychical Research.

Closely allied to this point is the second—namely, the question of whether a group of individuals possesses, or might possess, anything in the nature of a collective consciousness over and above their individual consciousnesses. This possibility Dr. McDougall provisionally rejects, but if Telepathy is a *vera causa* in nature, something of the kind appears to be a necessary consequence of it.

In so far as two minds would be *en rapport* their experiences would be "pooled" so to speak, their processes would react on one another, and their responses to any situation would become more and more similar as the degree of *rapport* increased. If the *rapport* were perfect the resulting state of affairs would be pragmatically indistinguishable from the existence of a true collective consciousness.

This possibility of the "pooling" of experience is one which constantly confronts Psychical Researchers in their efforts to ascertain the origin of evidential matter. It has even been suggested that some kind of a "central post" of experience may exist to which the "unconscious" of an automatist has access and from which evidential items are derived.

This view is not widely held, but its exponents could fairly claim that it has certain affinities with Jung's conception of a "collective unconscious," and a similar resemblance would doubtless be established by those psychologists such as Fouillée and Espinas, who are inclined to accept the hypothesis of a collective consciousness.

From this it is clear that Psychical Research and Social Psychology have more in common than might at first be suspected. Each is likely to throw a sidelight on the other, and students of Psychical Research who wish to make the most of this sidelight should certainly read Dr. McDougall's very valuable book.

W. WHATELY SMITH.

The Physical Phenomena of Spiritualism. By HEREWARD CARRINGTON, Ph.D. New edition. 1920. Pp. x. + 426. (Kegan Paul, Trench, Trubner and Co., Ltd., 12s. 6d. net.)

When the first edition of this book was issued in 1907 it stood almost alone amongst books of its kind. Such volumes as Truesdell's *Bottom Facts, The Revelations of a Spirit Medium, The Confessions of a Medium*, etc., were scarcely known amongst the general public, although their contents had long been in the treasured possession of both amateur and professional magicians. The appearance, therefore, of Dr. Carrington's work caused some small misgiving amongst magicians, for here was the cream of magical deception served up in an attractive form and made available for public consumption. Magicians are notoriously jealous of their secrets, and usually can only be persuaded to part with them when their own sphere of legitimate deception is invaded by the professional mediumistic trickster. But in these days of renewed spiritualistic

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activities even they can scarcely fail to welcome the reappearance of a work so broad in scope as that of Dr. Carrington. The author is one of those few investigators who know the scope and limit of deceptive contrivances. His acceptance of certain of the phenomena occurring in the presence of Eusapia Palladino demonstrates his ability to distinguish the genuine from the fraudulent, a faculty so often wanting in many of our more noteworthy sceptics. In the volume before us Dr. Carrington deals fairly fully with the fraudulent aspect of the subject, and also touches upon those phenomena which he considers inexplicable through normal agencies alone. Raps, slate-writing and sealed-letter reading, rope-tying materialisations, all receive the attention that they deserve, although in a few cases a somewhat more detailed treatment would have been acceptable. Such, however, was not Dr. Carrington's intention, and he has been singularly successful in presenting in a popular manner a subject that must always be of a difficult and even technical nature. To all those who desire to be acquainted in broad outline with the methods of fraudulent performers, and to appreciate generally the character of physical mediumship, the book cannot be too highly recommended. Yet it must not be imagined that the treatise is in any way exhaustive. Many of the more brilliant contrivances Dr. Carrington has left unrecorded, and indeed it might be truly said that each chapter could be successfully expanded into a separate volume. To understand fully the fraudulent side of spiritualism one must make oneself master of those great basic principles of deception upon which the art of magic ultimately rests. Dr. Carrington has very wisely omitted to deal in any way fully with the psychological aspect of the subject, contenting himself with a brief historical, critical, and expository survey of the phenomena. As such the book is probably unrivalled and ought to be in the hands of every student of the difficult problems associated with Psychical Research.

E. J. DINGWALL.

The Foundations of Spiritualism. By W. WHATELY SMITH. (Kegan Paul, Trench, Trubner and Co., Ltd., 3s. 6d. net.)

This book is published at an opportune moment. Recent years have seen a great increase of interest in the possibility of establishing by Psychical Research proof of survival of bodily death, and an increase also of evidence bearing on the subject. The time was therefore ripe for a book summarising the more recent evidence, and critically examining the main lines upon which research is proceeding. Mr. Whately Smith has very adequately supplied this need, which is all the greater for the steady stream of uncritical and unscientific literature tending to obscure the issue.

More than half the book is taken up with a discussion of the different forms of evidence for survival, among which the author, very properly in our opinion, attaches greatest importance to "cross-correspondences," and to what he calls "literary puzzles," such as the well-known "Ear of Dionysius" case. It is not, of course, possible in so small a book to give a full account of even a single case from either of these classes, but Mr.

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Whately Smith's summaries are clear and accurate, and full reference is given to other publications in which the cases may be studied at length.

The latter part of the book deals briefly with "the Process of Communication," and closes with a chapter setting out the author's "conclusions."

Many readers will think that Mr. Whately Smith is unduly cautious in characterising the experimental evidence for survival and communication with the deceased as "distinctly good," and refusing to assess the chances of the "spiritistic" hypothesis proving correct at much more than a half. It is true that "it is difficult to set a limit to the potentialities of the incarnate mind." There is no item of knowledge, however surprising, that may not be attributed to the subliminal memory of an automatist. But the cross-correspondences introduce, as the author recognises, a new element, that of purposive direction, the intention of a single mind. Unless and until some single incarnate mind can be indicated as the probable source, the most reasonable view seems to be to attribute the results observed to the particular discarnate mind by whom they purport to be inspired, and within the range of whose knowledge, as it existed before death, they have in some cases been proved to be.

The book is logical and lucid in its arrangement, and deserves to be widely read. In future editions the author will no doubt correct various misprints, such as "precipient" for "percipient" (p. 74), and "phenomena" for "phenomenon" (p. 8).

H. De G. SALTER.

Soul Science: The Proof of Life After Death. By Franklin A. Thomas. (W. and G. Foyle, Ltd., 12s. 6d.)

The writer tells us that "this is one of the greatest books ever written," and "should be in every home." After that, it is hardly necessary to say that it hails from the States, where the climate seems to engender in the inhabitants a wonderfully "gude conceit o' theirsels." Mr. Thomas tells us to be good, to avoid tobacco, to sit in home circles for the development of clairvoyance, and to believe in an immanent God. As to proof of life after death, he affirms such life, but gives no evidence.

The Dawn of Hope. By the hand of Edith A. Leale, with Forewords by Rev. G. Vale Owen, Rev. F. J. Paine, and Rev. Arthur Chambers. (Kegan Paul and Co, Ltd., 5s. net.)

Automatic or inspirational writing, from a son killed in 1916. Describes beautiful scenery, lovely children, music, flowers, and so forth, somewhat in the manner of Mr. Vale Owen's script. The messages do not appear to have any evidential quality, and consequently do not call for long discussion in a scientific journal; but no doubt they will be comforting and helpful to many bereaved people, as they were to the recipient.

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EDITORIAL

THE SPECIAL TECHNIQUE OF PSYCHICAL RESEARCH

THE question of what previous studies and achievements, if any, entitle a man to pronounce with especial authority on the problems of Psychical Research is one which has occasioned much controversy in the past, and the August number of the *Journal of the American Society for Psychical Research* rightly emphasises afresh the necessity for clear thinking about it.

The point is of some importance because Spiritualists frequently adduce in support of their contentions the names of eminent scientists who have accepted the spiritistic interpretation of certain phenomena. They argue, with a certain plausibility, that a man who has gained a great reputation as a chemist, a physicist, or an engineer is likely to possess greater powers of close observation and sound reasoning than one who has not done so, and is therefore the better equipped to deal with any intricate investigation which demands these qualities. On the other side it is urged that such eminence can only be achieved by some considerable measure of specialisation, and that this must *ipso facto* handicap a man when he attempts to work in a field in which he has not specialised and where the conditions are widely different from those to which he is accustomed.

Both these arguments are sound enough provided they are not pressed to extreme lengths. It would be absurd to deny that an able man is likely to make a more competent Psychical Researcher than a less able, or that eminence in any science or profession is, in general, a sign of ability. It is equally incontestable that a high degree of specialisation is apt to produce a certain narrowness of outlook, a rigidity of mental habit, which might prevent the proper assessment of unfamiliar factors.

The possibility of fraud, for example, is one which must never for a

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moment be forgotten in the course of Psychical investigations, but it is the very last thing with which chemists or physicists need concern themselves. They have many special difficulties of their own, but at least they can be certain that no one will deliberately play tricks with their apparatus, falsify their weights or adulterate their materials while their backs are turned! This habitual immunity from fraud is clearly unlikely to lead to that particular form of critical observation which is necessary for the distinguishing of spurious from genuine phenomena.

Exhaustively to discuss all the points at which the physical scientist may be expected to be better or worse armed than the "layman" would take us far beyond the limits of our available space. We may, however, briefly summarise the matter by saying that eminence in any branch of physical science is likely to indicate a man well fitted to *learn* the special technique of Psychical Research, but not one who is already possessed of it.

There is far too widespread an impression that "mere common-sense" will enable a man to form sound judgments about these very intricate problems, and it cannot be too emphatically observed that this is very far from being the case. Psychical Research is as highly technical a subject as any in the world, although its difficulties are of quite a different quality from those of, let us say, mathematical physics.

The phenomena of Psychical Research fall into two main classes, namely, "physical" and "psychological." In the first class, consisting of various physical events which cannot, apparently, be attributed to normal causes—*e.g.*, table-movements, raps, "spirit lights," "spirit photographs," "materialisations"—the primary question is whether the occurrences are genuine or fraudulent. To form a reliable opinion on such questions necessitates a degree of special knowledge which very few people possess and with which the average scientist is no better equipped than anyone else. An acquaintance with conjuring methods in general is naturally very valuable; still more so is a knowledge of the special devices which have been used in the past for the production of the particular phenomenon in question —a knowledge, that is to say, of *what to look for*. Most valuable of all is a thorough appreciation of the extent to which people can be deceived and, in spite of every effort, induced to substitute inaccurate inference for actual observation.

It has been shown, by direct experiment, that the observations of even the most careful witnesses are quite valueless unless backed by special knowledge of this kind. Without such knowledge the most eminent scientist is almost as helpless in the hands of a really skilled exponent of fraudulent phenomena as the village yokel in those of a "three card trick" expert. It is quite true that his very proper repugnance to accepting as genuine phenomena which would hopelessly

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conflict with everything which he has proved to be trustworthy may save the scientist from omnivorous credulity. But this will not enable him to *discover* the trick, and he will have no more chance of separating the genuine residuum from the fraudulent mass than he would have of isolating a fine chemical precipitate without a filter-paper. Unfortunately, few inquirers—scientific or otherwise—possess this knowledge, and progress is immeasurably retarded by the consequent imperfection of the "filtering" process.

The other chief variety of technical knowledge which is required for the successful prosecution of Psychical Research is an understanding of certain branches of Psychology. This is, indeed, involved in some measure in the elimination of fraud, for it is only when we know something of the psychology of Belief that we can properly understand the mechanism of Deception.

But the interpretation of the whole of the second class of phenomena referred to above is simply and solely a matter of Psychology. We have already observed that the real difficulty in the way of accepting the spiritistic view lies in the fact that "our knowledge of what the incarnate human mind can achieve on occasion is not yet sufficient to warrant our assigning definite superior limits to its powers—powers which modern Psychology has already shown to be much more extensive than we once suspected." Only those possessing considerable acquaintance with the facts of psychology—and especially of abnormal psychology—can so much as estimate the complexity of the problems involved, far less hope to arrive at reliable conclusions concerning them. If we were not aware of the phenomena of cryptomnesia, of alternating personalities, of unconscious mental processes and motives, of the mechanisms of dream formation and the like, we should not only find the evidence in favour of the spiritistic hypothesis overwhelming, but should be unable to bring any plausible case against it, whereas even our present incomplete knowledge renders the issue extremely doubtful.

The light which modern investigations, and especially psycho-analytic methods, have thrown on the unconscious motives which determine seemingly causeless actions is in itself a contribution of first-rate importance to the subject. It has been proved up to the hilt that even the apparently most senseless actions of the deranged have a *raison d'être* which is perfectly comprehensible when once the mechanisms concerned are laid bare. Henceforward all arguments in favour of the genuineness of phenomena which are based on lack of motive for their fraudulent production must be considered worthless, for no mediumistic activities are more irrational than many compulsive acts whose secret causes have been discovered.

The cases of "pseudo-mediumship" which have been recorded and analysed by such workers as Jung (*Studies in Analytical Psychology*,

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Chapter I.), Stanley Hall (*Psychological Review*, 1918, "A Medium in the Bud"), Bousfield (*Elements of Practical Psycho-analysis*, Chapter XI.) and others, show how important are the contributions to our understanding of "mediumship" which we may expect to obtain from these sources.

We can only hope to solve the problems of Psychical Research by availing ourselves of every weapon and every scrap of relevant information with which modern psychology can supply us. Psycho-analytic methods in particular are the most powerful which have yet been devised for the investigation of those transformations of personality which so closely resemble some of the conditions with which Psychical Research is concerned.

It is for these reasons that we have insisted, and shall continue to insist, on the importance of psychological and psycho-analytic contributions and to give especial prominence to articles dealing with these aspects of the subject.

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TWO NOTEWORTHY "BOOK-TESTS"

By Mrs. W. H. Salter

So much has been written in recent years concerning the phenomena of trance-speech and trance-writing that I shall assume my readers to be familiar with the general conditions under which these phenomena are obtained. I shall not enter into any theoretical discussions as to what is the psychological condition of a person in trance, or what is the relationship existing between the normal personality of a trance-subject on the one hand, and on the other the personality manifesting itself in the trance, or, in cases where communications from the dead purport to occur, the so-called "controls" and "communicators."

I shall further take it as established that in this condition of trance knowledge is sometimes displayed which has been supernormally acquired; that is, acquired by some other channel than the recognised channels of sense. I am, of course, aware that in some quarters this assumption will be challenged. But it is now accepted as valid by a very large majority of those who have given the subject any special attention.

Granting this assumption, however, there still remain important problems to be considered in regard to the sources and limits of any supernormal knowledge which may be displayed, and especially in regard to the question of whether any of this knowledge does, in fact, derive from discarnate minds, as is so frequently claimed.

Now amongst the various alleged phenomena with which psychical research has been concerned, telepathy between the living has most nearly attained to being scientifically established, and that being so, we are bound, on the general principle of economy of causes, to consider the claims of this phenomenon as a possible explanation of observed results before we open the field to other, more hypothetical, claimants.

In our present ignorance of the conditions under which telepathy between the living can occur, we can hardly hope to obtain results which will entirely exclude this phenomenon as a possible cause, but it may sometimes be shown to be a cause so far improbable that we are justified in looking further afield. It is from this standpoint especially that I put forward for my readers' consideration the two incidents I shall describe below. Some preliminary explanation is, however, needed to make them intelligible.

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Both these incidents occurred at sittings held by me with the professional trance-medium Mrs. Osborne Leonard. Reports on Mrs. Leonard's phenomena have already appeared in the *Proceedings* of the Society for Psychical Research [1] and in the *Psychic Research Quarterly*,[2] and a further report, covering a period of three months, during which a special inquiry into Mrs. Leonard's phenomena was carried out by the Society for Psychical Research, will probably appear shortly. With regard to Mrs. Leonard's *bona fides* I will only say that, although she has at various times been kept under careful observation by competent observers, nothing suspicious has ever been noted, and many of the statements she has made in trance appear to show knowledge it would have been all but impossible for her to obtain by fraudulent means, even if she had been willing to employ them. I have myself had a considerable number of sittings with Mrs. Leonard, and have no doubt whatever of her *bona fides*.

Her trance-phenomena are of the usual mediumistic type; she purports to be "controlled" by an entity calling herself "Feda," who acts as an intermediary for various "communicators," friends and relatives of the sitter.

During the last few years a special type of phenomenon has developed with Mrs. Leonard, known under the name of "book-tests," the nature of which I will briefly indicate.

An attempt is first made to identify a particular book-case in the sitter's house by mentioning its position in regard to other features of the room in which it stands—the door, for instance, or the windows; sometimes other articles of furniture are described in some detail. In successful cases sitters are able to assert that they know of one book-case only to which the description would apply. A shelf is next indicated—for instance, the second from the top—and a particular book in the shelf, say the fourth from the left. The number of a page in the book is then given and, usually, some indication as to the part of the page, "near the top," "about half-way down," and so forth. The field having been thus narrowed down, some statement follows as to what the sitter may expect to find in the passage indicated. These statements vary considerably in precision. In some cases so much scope is left to the ingenuity and imagination of the sitter that not much importance can be attached to the results; but in other cases the indications given as to subject-matter are very definite, and the value of the test is then proportionately high.

I will now give an account of two book-tests received at my own sittings with Mrs. Leonard, having first noted that my identity was

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[1] See *Proc.* S.P.R., Vol. XXIX., p. 126 *ff*, and Vol. XXX., p. 339 *ff*.

[2] *Psychic Research Quarterly*, Vol. I., p. 164 *ff*.

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known to Mrs. Leonard at the time of these sittings and the ostensible communicator on each occasion was my father, the late Prof. A. W. Verrall, of Trinity College, Cambridge.

I

The book-test on this occasion was taken from the house of some friends of mine who have had regular sittings with Mrs. Leonard for some time past and have themselves received a number of successful book-tests. I have had book-tests taken from their house on previous occasions. I will now give from my contemporary record the relevant extract from the sitting of November 5th, 1920:

FEDA: He's [A.W.V.] got a book-test from Mrs. T——'s. Room, ground floor, two or more positions with books in, but the books he means are to the right as you enter the room; they're on the right, not left.

Over in the opposite corner to the door, but to the left [points to L. front], seems to him there was an article of furniture, a table or stand on which you could put things. And very close to it he felt very near the wall something of a religious order; yes, he says that's the best way to put it.

H. S.: That's near the stand?

FEDA: Yes, but he's not sure it's on it. He's also got the feeling of a little modelled figure as well as the idea of the religious thing. Also something carved, but open-work carved, that you can put fingers in. He's only giving all this as an indication of the room, though the books are not really near there; the books are to the right.

There's more than one shelf; he's going to call it first, second, or third. He's taking the second shelf up, that way [lifts hand vertically], the third book from the left, page nine 0, at page ninety a reference to a subject Mr. Arthur [Feda's name for A.W.V.] was very interested in here, and was considered an authority upon.

H. S.: You haven't said any particular part of the page.

FEDA: Not *quite* at the top, about a quarter to a third way down the page. That's where he saw the reference. When you feel this book, you'll understand there's a good many things he would be interested in, subjects, allusions, interests. And right at the very beginning of the book, before the real stuff starts, on the fly-leaves, there is something that might be taken as a personal allusion to himself, not just to his work, but something personal. He says: "Just keep it exactly as I've said it. I think it will strike you."

First as to the room in which the books are, the identification is quite clear. We are told that it is a ground-floor room and that the books are to the right as one enters. There is but one room in the house in question which contains books in the position indicated. This room has a large book-case standing against the wall in which is the door, on the right-hand of a person entering the room. If nothing further had been said about the room, we should have been clearly directed to this book-case. But the identification is made yet more certain by the fact that the other statements made by Feda concerning the contents of the room in which the test-book was said to be, were all found applicable to the room that was apparently indicated.

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(1) We are told that there are two or more groups of books in the room. There are, in fact, several.

(2) In the opposite corner to the door to the left of it there is said to be an article of furniture, a table, or stand, on which things can be put. There is only one article of furniture in the room to which these words could apply, a large oak writing-table standing to the left of the door and close to the wall running at right angles to the door. It is not accurate to say that this table is in the opposite corner to the door. It is actually about four feet from the corner, but it might appear less to a casual observer, because that corner of the room is brought forward by having book-cases built against it.

(3) Close to the table and very close to the wall it is said that there is something "of a religious order," and "a little modelled figure."

At the extreme right-hand end of the oak table (the end furthest from the door) stood a large crucifix on a stand. The "little modelled figure" may be either the figure of Christ on the crucifix, or it may be a small bust about ten inches high which also stands on the writing-table near the crucifix.

(4) There is also said to be something carved, with open-work carving that "you can put fingers in." On the same writing-table is a small wooden paper-rack having little carved pilasters all round with spaces between.

(5) With regard to the case containing the test-book it is said that there is more than one shelf; the communicator will speak of first, second, or third. There are, in fact, three shelves in the book-case to the right of the door.

It will thus be seen that some fairly detailed and exact knowledge is shown concerning the arrangement and contents of the room said to contain the test-book. It is to be observed that Mrs. Leonard has never visited the room, or, indeed, the house in question, and although statements concerning various articles of furniture in this and other rooms have been made at sittings held by the owners of the house, it so happens that the particular objects mentioned above have not been mentioned before. I do not wish, however, to dwell especially upon this description of the room and its contents, for, though not without interest as evidence of knowledge supernormally acquired, it does not bear upon the particular point I had in mind in writing this paper; for I have frequently visited the room in question, and knowledge of its contents could have been derived from my conscious or unconscious mind. This is not the case as regards the book-test proper; for, although it is possible to suppose that I possessed (unconsciously) just so much knowledge concerning the test-book as could be derived from seeing it standing in the shelf,[1] I have never had the book in my

[1] See below.

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hands, nor any other copy of the book, and I could have no knowledge whatever as to the details of its contents.

I now turn to the consideration of the book-test itself.

This, we are told, is taken from the third book from the left on the second shelf from the bottom. On page ninety of this book, not quite at the top, there is a reference to a subject in which my father was much interested and upon which he was considered an authority during his lifetime. The book proved to be a volume of the *Tragedies of Alfieri*, in the original Italian, and at this point I must digress for a moment to explain a difficulty which is apt to arise in determining the page from which a test is taken.

The "communicators" assert that they cannot read any part of a book at will, but can only get fragmentary impressions of particular lines or passages. Consequently they cannot give the page reference by the number printed on the page, but can only reckon the pages through from the beginning of the book, "weigh them up," as Feda expresses it. Different communicators, I believe, follow different methods, but as regards the book-tests given at my sittings I have always been told to count the pages from what to an ordinary reader is the beginning of the book. Now the result of this method is that the communicator's numbering will not always correspond with the printer's numbering; for although in some books the numbering begins with what Feda calls "the proper reading matter," in others a certain amount of preliminary matter of various kinds is included. Occasionally this method leads to an unfortunate ambiguity as to the page intended, but as a general rule I have not had much difficulty in determining in my own mind which is the page upon which the test should be found according to the general instructions received. In the particular volume now under discussion two entirely blank end-leaves (counting as four pages) are included in the printed numbering, but these I should not expect to find included in the communicator's reckoning; the ninetieth page in his reckoning would therefore be the page numbered ninety-four.

Page ninety-four of the selected volume consists of a full-page illustration to the play which follows, which is the second of the three plays included in this volume, and the title of the play, *Alceste* (*Alcestis*), appears in large capital letters at the top of page ninety-four, which is a left-hand page, and about a third of the way down the opposite right-hand page, ninety-five. The illustration represents the climax of the play, Heracles bringing Alcestis back from the dead and restoring her to her husband and children. Now there can be no question but that this illustration and the name *Alceste* represent a subject in which my father was keenly interested, and upon which he was considered an authority. Without going into unnecessary biographical details, I

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can make this point clear by two brief quotations from the *Memoir* of my father published after his death:

> [P. lvi.] "The chief interest of the book [an edition of the *Ion* of Euripides], however, lies in the Introduction, where we have the earliest of those studies in the work of Euripides by which Verrall attained what is perhaps his greatest and most lasting distinction. . . ."
>
> [P. lxiii.] "After the publication of the *Choephori* in 1893 the Euripidian studies were resumed, and bore fruit in *Euripides the Rationalist*, which appeared in 1895. The *Alcestis*, Ion (for a second time) and *Iphigenia in Taurica* are subjected to an exhaustive analysis. . . .
>
> "Of the novel and startling view taken of the *Alcestis* no extract or summary could give a fair presentation. . . ."

It will be seen from the second of these extracts that the essay on the *Alcestis* stands at the head of the first and probably the most widely-read volume of my father's Euripidean studies, and certainly no more typical example of his work on Euripides could be named. It is perhaps worth noting that the representation of Alcestis being restored from the dead by Heracles illustrates the cardinal point in my father's discussion of the play.

There is one small inaccuracy to be noted in the statements made concerning this test. We are told that the relevant matter will be found about a quarter to a third of the way down the page. The word *Alceste* is, as I have said, at the top of the page above the illustration, and since the illustration itself occupies the whole of the rest of the page, there does not seem to be any relevance in alluding particularly to something a quarter to a third of the way down the page.

Two possible explanations of this inaccuracy suggest themselves: (*a*) Contrary to the usual method of procedure, the position on the page was not spontaneously given by Feda, but was added in reply to a direct inquiry by myself, and in common with other sitters I have observed that information given in reply to a direct question is often wrong or inexact. I should perhaps have done better to leave Feda to her own devices; but it is easy to be wise after the event.

(*b*) As noted above, the word *Alceste* occurs about a third of the way down page ninety-five, opposite to page ninety-four, and there is some evidence to show that confusion is particularly likely to occur between two opposite pages which lie against each other when the book is closed.

Turning to the next point in the test, we are told in regard to this volume of Alfieri's plays that it contains a good many "subjects and allusions" in which the communicator would be interested. The volume contains three plays, *Bruto Secondo* (a play concerning the murder of Julius Cæsar), *Alceste*, and *Antonio e Cleopatra*, all of them subjects of general interest to a classical scholar. After the plays there are some notes by the author, not only on these three plays, but on others not included in this volume. Turning the pages of these notes,

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I observed the following names printed conspicuously as section headings: *Polinice, Antigone, Agamemnone, Oreste.* All these four characters were of special and peculiar interest to my father, as I will show by further quotations from the *Memoir:*

[P. xxx.] "In 1887 he [Dr. Verrall] published an edition of the *Septem contra Thebas* of Æschylus. The play offers no scope for such a comprehensive view of the poet's art as we have in the commentaries on the great trilogy, but this volume inaugurated a new era in the interpretation of the play and in the study of Æschylus as a whole." [The death of the two brothers *Polinices* and *Etiocles* at each other's hands is the cardinal incident of this play, and it closes with *Antigone's* statement of her determination to bury her brother Polinices in spite of all prohibition.]

[P. xlviii.] "In 1889 Verrall published his *Agamemnon* of Æschylus, and in the general judgment the book at once established him in a position of supremacy among the poet's interpreters."

[P. lxviii.] "In 1905 the work of the poet who had now perhaps become his favourite—at least among the ancients—was examined afresh in *Four Plays of Euripides.* The plays discussed were *Andromache, Helen, Heracles, Orestes.*"

Finally we are told that at the very beginning of the book, "before the real stuff starts," there is something that might be taken as a personal allusion to my father; it does not merely refer to his work.[1] The "real stuff" I take on this occasion to be the plays, of which the first, as I have said, is a play entitled *Bruto Secondo.* I therefore looked through the few pages which precede this play to see whether I could find anything that could be regarded as a personal allusion to my father. I only found one passage that seemed relevant. It occurs in the argument prefixed to the play, and runs (in English) thus:

From his study of the Grecian writers (for he [Brutus] was learned and eloquent beyond many of his age) he had drunk in the most determined ideas of liberty.

The applicability of these words to my father I can demonstrate by a further quotation from the *Memoir:*

[P. xlv.] "He was, all his life, steadfast to Liberalism in politics, and the passion that went with his reason was quickly fired in any cause of justice or liberty."

This part of the test is less striking than the allusion to Alcestis because the reference was not so exactly given and the scope for chance coincidence is proportionately greater. There was not, however, a large amount of matter upon which to draw, only a short preface and the "argument," the whole occupying less than three pages. It will be seen that the words I have quoted apply, as we were told they should, to my father's personality rather than to his work.

[1] Feda's suggestion that this allusion will be found on the "fly-leaves" must not be literally interpreted. "Fly-leaf" is a word which has caught her fancy, and she uses it vaguely to designate any part of the book which precedes what she calls "the proper reading matter," or "the real stuff."

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II

I now propose to give a brief account of an earlier book-test which I obtained at a sitting held on January 4th, 1919. The test-book on this occasion was said to be at my home at Newport, Essex, and by the indications given of its position was clearly identified as being one of a row of books which had been placed in an unused room for book-test purposes. The books were selected and placed in the shelf by my husband, the object of this arrangement being that if any allusion was made to them at one of my sittings it should be impossible to say that any information had been derived from the sitter's mind. I never entered the room after the books had been placed in it until I went there on the evening of January 4th, 1919, to verify this book-test.

It was said at the sitting that a test had been taken from the second book from the left in the shelf indicated, and two page references were given, twenty-five and fifteen. The first half of the test was unsuccessful (*i.e.*, no relevant passage was found on the page named); the second half I will now give in detail. The ostensible communicator was again my father.

Extract from Contemporary Record of Sitting

FEDA: Page fifteen [1] of the same book—half-way down, or a little above, perhaps. It speaks—(to communicator) Do you want to give the position exactly?—He's making a line across half-way down the page, and the position is about a quarter of an inch above that line. . . . There's a word or words which will form a cross-correspondence.[2] [An attempt to indicate the other persons concerned in this supposed cross-correspondence then followed; but the statement is confused and need not concern us here.]

FEDA: Oh! a long pole.

H. S.: A long pole?

FEDA: I've got to say those words, and he's pretending to show me a long pole in his hand. . . . While he's telling me that I get a funny feeling, as if the funny pole means something very important.

The book indicated proved to be *Daisy Miller*, by Henry James. On the middle of page fifteen occur the following words:

"I should like to know where you got that pole," she said.

"I bought it," responded Randolph.

The half of the page comes just below the line containing the word "pole," and the pole is referred to a few pages earlier in the book as a "long alpenstock."

So far as the cross-correspondence is concerned, the allusion would seem to be to the name Randolph, which has a meaning in this connection, but the point I wish to make here is that the actual word

[1] The same method of reckoning the pages has been followed in this test as in the last, but it so happens that in the present case this reckoning corresponds with the printing of the book.

[2] A word used by writers on psychical research to denote connections between the automatic writing or speech of two or more automatists.

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"pole," upon which, it will be remembered, Feda put some emphasis, occurs in exactly the position indicated, the position being measured to within a quarter of an inch.

The question now arises as to what light such incidents throw on the supernormal powers exercised by a trance-medium such as Mrs. Leonard. Unless these incidents are to be ascribed to chance coincidence—and after studying a considerable number of book-tests I find it almost impossible to believe that no agency other than chance is concerned—we are forced to the conclusion that precise, if limited, knowledge concerning the contents of closed books standing in rooms which Mrs. Leonard has never entered is somehow conveyed to her mind. It is to be observed that in the two instances which I have here related telepathy from the sitter would appear to be entirely excluded, since I had, so far as I am aware, no knowledge whatever as to the books indicated, and certainly no knowledge as to what might be contained on a particular page of those books.[1] Even if we are prepared to adopt the hypothesis of "unlimited telepathy," whether from the living or the dead, it must be strained to its furthest limits to explain such phenomena as those. Consider, for instance, the second of the two book-tests described above. The fact that *Daisy Miller* was the second book from the left on the shelf indicated was known only to my husband, and knowledge on this point, if obtained telepathically, must have been obtained from him. On the other hand, so far as he is aware, my husband has never read *Daisy Miller* in the particular edition concerned—he made a point of selecting for test purposes books which he had not read—and he could not therefore know that the word "pole" would be found just above half-way down on the fifteenth page. On the telepathic hypothesis it seems necessary to suppose that the position of the book in the shelf was learnt from my husband's mind, and the position of the word "pole" from some other unknown person who happened, consciously or unconsciously, to know it, *e.g.*, the printer who set up the type.

If we are led by these difficulties to reject the hypothesis that knowledge concerning the position and contents of the test-books is derived telepathically from the minds of persons who have acquired this knowledge by normal means, we seem to be thrown back upon the hypothesis of clairvoyance or telæsthesia, the "direct sensation or perception of objects or conditions independently of the recognised

[1] As regards the volume of Alfieri, it is, as I have said, possible that I had unconsciously seen the volume standing in the book-case. On the back of the book the author's name is printed at the top, and at the bottom the titles of the plays, *Bruto Secondo*, *Alceste*, *Antonio e Cleopatra*. The names are printed in small capitals and, the back of the book being heavily ornamented, they do not stand out conspicuously. Moreover, the book-case is largely concealed from the part of the room in which I have usually sat by other articles of furniture.

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channels of sense, and also under such circumstances that no known mind external to the percipient's can be suggested as the source of the knowledge thus gained." If we accept this as a working hypothesis, a further question still remains to be answered: who is the percipient? Ostensibly it is the communicator, who obtains his knowledge from the books themselves and imparts it to the medium by the same means, whatever they may be, by which he imparts any other knowledge to her, as, for instance, of his name or of some incident in his past life. But evidently such claims cannot be taken at their face value, and having at present no knowledge as to what is the *modus operandi* in telæsthesia, we have no *a priori* grounds for assuming that a disembodied mind can exercise this faculty any more easily than one that is embodied. If, therefore, we wish to determine to whom we must assign the telæsthetic faculty which we are now assuming to underlie these "book-tests," I think we can only have recourse to the same criterion that we should naturally apply to any other phenomena in which the identity of a supposed communicator was in question. We must ask ourselves whether these book-tests, either in substance or in the manner of their presentation, are in any way characteristic of the supposed communicator. Upon this point there appears to me to be a fairly sharp distinction between the two tests I have described above.

In the *Daisy Miller* incident there is nothing that appears to reflect the personal characteristics of the communicator. My father had doubtless read *Daisy Miller*, for he had a good acquaintance with the novels of Henry James; but the book is not specially associated with him. There is no personal reason why he should have singled out page fifteen of this book for reference, nor does anything that was said about the selected passage show a knowledge of his personality or his habits of thought.

With the *Alcestis* incident the case is different, and it would appear that the test-book has been chosen with a special reference to the particular communicator from whom the message is said to come. In evidence of this the following points are to be noted:

(1) The choice of a page occupied by an illustration to a play called *Alcestis*, coupled with a statement that on this page will be found a reference to a subject upon which the communicator was considered an authority, suggests a fairly exact knowledge of my father's work and interests; not merely a general knowledge of his having been a classical scholar—a fact of which Mrs. Leonard may be assumed to be aware—but a knowledge of the particular line of inquiry to which he had specially devoted himself.

(2) The reference to the "most determined ideas of liberty," if I am right in my interpretation of this point, appears to show knowledge of a fundamental element in my father's character and outlook on life.

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I have often heard him maintain the great importance of complete liberty of thought, even if it should result in many people thinking wrongly.

As is stated in the *Memoir*, from which I have already quoted, he accepted for himself the definition of liberalism given by Mr. G. K. Chesterton in his book on Browning:

> A liberal may be defined approximately as a man who, if he could, by waving his hand in a dark room, stop the mouths of all the deceivers of mankind forever, would not wave his hand.

(3) Finally, there is the question of the language in which the test-book was written, Italian of the classical period. Mrs. Leonard may know a few words of Italian, but she has no grasp of the language as a whole; whereas my father, though he never regarded himself as an Italian scholar, could read classical Italian with ease and pleasure, as witness his published essays on Dante.

In forming a general estimate of the value of such evidence as I have discussed above, we are always faced with the difficulty of determining how much allowance must be made for chance coincidence, and when the discussion is restricted, as here, within the compass of a comparatively short paper, it is not easy to give the reader material upon which to form an independent opinion. Where phenomena such as these book-tests are concerned, although it is easy to classify the complete failures, the more or less successful results will vary immensely in evidential value, and each must be judged on its own merits. As to the proportion of total failures, it is alleged—with apparent justification—that communicators differ considerably in their skill. In my own sittings I have now had forty book-tests, [1] of which twenty-five can be classified as at least partially successful and fifteen as failures. The second of the two incidents described above—the *Daisy Miller* incident—I consider the most completely successful result I have obtained, owing to its great precision. I have had other tests quite as striking as the *Alcestis* incident merely from the point of view of indicating knowledge supernormally acquired on the part of the medium; the incident has been chosen for discussion here as throwing some light on the probable sources of this knowledge.

I have already stated my own conviction that chance coincidence alone will not account for the book-tests, and it will be generally admitted that the chances against such a coincidence as occurred in the *Daisy Miller* incident are very great. My readers, however, may be left to form their judgment. All that I can hope to do within the compass of this paper is to show that there is at least a *prima facie* case for inquiry.

[1] For the purposes of this classification I have reckoned each page reference as a separate test. Sometimes several are given in one sitting.

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MAGIC AND MEDIUMSHIP

By E. J. Dingwall

MEN have often commented upon the fact that after any great catastrophe to human society in which many lives are lost an interest in a possible world beyond the grave is immediately awakened. In his vain striving for permanence and security, man, the puppet, yearns for compensation against those forces over which he has seemingly but little control. Such a state of mind is easily demonstrated as an essential part of post-war psychology. If it is really possible, as so many persons are now saying, that the living can enter into communion with the dead, then to some a new ray of hope is visible, and death loses at least a part of its gloomy horror. Mediums are therefore sought out to give the desired proofs, and as the demand becomes insistent so does the supply of such gifted persons proportionately increase. For the true psychical researcher such a condition of affairs gives rise to the most profound suspicion. Fraud is so easy, sorrowing people are so gullible, that he immediately suspects that the supply of mediums does not proceed from a wholly untainted source. The experiences of students in the United States, also, does not lead him to suppose that frauds on such a gigantic scale as are prevalent over there are an absolute impossibility even in this country. Indeed, there are already indications of fraudulent mediums working in England to-day, who are looked up to as high priests of the spiritualist movement, in spite of the fact that their manipulations are as audacious as they are clever. The situation therefore for him who wishes to preserve a balanced judgment certainly seems gloomy enough. On the one hand the spiritualists assure him that further tests are useless, that the phenomena are proven, and that every creak in a table or blur on a photographic plate is the work of unseen intelligences. On the other hand the sceptics, headed by those curious people who, knowing little of fraudulent devices, declare that all psycho-physical phenomena are due to them, gravely inform him that fraud was never so rampant as it is now, and that normal and even scientific observers are being deceived by tricks which would be laughed out of court if shown at any country fair. Between these two opposing forces the honest investigator has to find his way as best he can. His spiritualistic critics usually preface their strictures of his methods by hurling at him some such epithet as "fraud hunter" or "vivisector of mediums," whilst the materialist usually refers to him as "a credulous

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old fool," or if he happens to be young some murmurs of the complexes of adolescence may occasionally be overheard. Notwithstanding such criticisms, psychical research must still be carried on in that spirit of cool, calm impartiality which is essential to a studied judgment of the facts. The opinions of the spiritualists can usually be passed over or ignored, except when they happen to be held by persons who have only reached their conclusions through a really patient study of the existing material. The sceptical writers, however, seem to me to be on a slightly different plane. Very few of them have even so much as attempted to make themselves familiar with the extant literature of the subject, their chief battle-cry being always Fraud—fraud with a big F. Almost everything, they think, can be explained by this one formula. If a human hand has apparently materialised at a séance, it is really the medium's hand which has escaped from the controllers or it is a dummy hand which she is manipulating with her foot. It does not matter to the sceptic if both the hands and the feet of the medium are being held by competent observers. They are either halucinated or are themselves holding dummy hands whilst the medium plays about unseen with her apparatus. If, on the other hand, the control seemed perfect, then a confederate has come down the chimney or in at the window or in any other absurd way that can save the theorist from having to admit that something abnormal has happened. The layman who is presented with these theories by such radically different sets of controversialists can hardly keep himself from a feeling of bewilderment. Nor need we be surprised at his conclusions. The stories he hears are so grotesque, so utterly preposterous that he cannot believe them. He knows that he is easily deceived by the simplest experiment that he sees at Maskelyne's, Ltd. Surely, then, all these "physical phenomena" are tricks too, tricks that do not happen to have been found out! Such is the mode of his argumentation, and his opinions are supported by numberless perfectly true stories of fraud with which the sceptic is always primed. Now, arguments of this nature are exceedingly difficult to meet, and the difficulty is increased by the comparative rarity of persons who are acquainted with the subtle technicalities of what has been termed "spirit conjuring" and also with the history and appearance of psycho-physical phenomena. The word of an ordinary magician[1] is not to be wholly trusted. An expert in billiard-ball manipulation, he may know nothing of the methods of sealed-letter reading or of concealing fakes for materialisation. To be able to judge dispassionately he must have made a study of just those methods actually employed by fraudulent mediums, and if he has the time to practise

[1] I use the word *magician* instead of *conjurer* because the latter is never technically employed by "conjurers," the words *conjuring*, *conjuring trick*, and *conjurer* being invariably replaced by *magic*, *magical experiment*, and *magician*.

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them he ought to be able to reproduce the same effects under the same conditions. At the same time, his knowledge ought to include an acquaintance with the history of spiritualism and psychical research, some understanding of modern psychological theory and the practice of psycho-analysis, together with the rudiments of the phenomena of dissociation, multiple personality, and trance deception. Equipped with such information as this, his word as to the genuine character of a certain phenomenon is valuable but by no means conclusive. As the ordinary man can never hope to have the necessary knowledge for decisions of this importance, and as the materialist and the spiritualist alike generally refuse to acquaint themselves with trick methods, it has been thought advisable to put into the easiest form possible exactly what magic is, what magic can do, and how it differs from fraudulent and how from genuine mediumship. Incidentally, in the course of our researches we shall touch upon just those faults, lapses of memory, and misdescriptions which render valueless the accounts of marvels as presented by untrained observers.

Firstly, then, what is magic ? The essence of magic really consists in apparently accomplishing what has hitherto been considered impossible, or, in other words, it is the art of creating through misdirection of the percipient's senses the mental impression that some supernormal or supernatural agency is at work. If one goes to a place of entertainment—and it must be remembered that the primary aim of magic is to entertain the audience—one often sees performers who pride themselves on being called magicians. They perform marvellous manipulations with coins, cards, and billiard balls, these articles turning up in the most unexpected places. These manipulations are often described as experiments in sleight-of-hand. The real fact of the matter is that the performer is a juggler, and not a magician, his performance being invariably described by his audience as "very clever" or "very quick," but never as "very mystifying." The public know that there is a mysterious something called sleight-of-hand, and they at once conclude that that is "how it is done." The artist in magic is quite a different person. He has learnt the great lesson that sleight-of-hand is only a means to an end. It is simply part and parcel of his stock-in-trade, an essential item in the technical side of his art. But it is not an end in itself. Supposing a magician was about to perform an experiment which could be accomplished in two different ways; one way involved a great deal of sleight-of-hand whilst the other required none at all. He would be a foolish man who chose the first method. The main point in magical work is the presentation and the effect, and if the effect in both cases was the same it would be sheer waste of time to spend hours in practising difficult manipulations. The magician would, of course, choose the second method, but the magical juggler would select the first. He would talk a good deal of

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nonsense about the quickness of the hand deceiving the eye, he would ruffle his cards or clink his coins, at the same time bewildering his audience and sending them away with the opinion that the performance was a very clever display of sleight-of-hand. This might certainly be true, but it would not be magic, and this leads us back to what magic actually is and how its marvels are accomplished. I do not propose in this paper to deal in any way fully with the canons of magic. It will be convenient here only to touch upon those aspects which will assist us in a proper understanding of magic's relation to mediumistic operations.

It has often been said, and cannot be too often repeated, that the magician is an actor playing a part. His principal *rôle* is that of the mythical wonder-worker who by a touch or a word is able to command the impossible. In playing his part the magician should appear almost as surprised as his audience. He is merely a channel through which power flows in order to perform miracles. He is a sort of medium with the unknown. A cannon ball wanders from a tall hat into a bowler. How curious it is! How did it get there? He cannot tell you. All he did was to wave his arm and it went. There did not seem to be a single suspicious move or manipulation. How could he have done it himself? Such a thing is impossible, and yet it happened. Such thoughts as these must flit in and out of the minds of an audience before a performer can be satisfied that he has been successful. His success depends upon his ability to use those psychological principles which are essential for a good presentation, and it is to these principles that we must now turn our attention.

When magic was defined above it was said that one factor which was always employed was the "misdirection of the percipient's senses." Now the theory and practice of misdirection would require a volume all to itself. Yet the subject is enormously important if we want to understand how fraudulent mediums produce their effects and how the legitimate magician performs his miracles. For our present purposes it will be sufficient to take just two channels through which misdirection can work most easily. In both cases a certain amount of overlapping must inevitably occur, but, generally speaking, the two most fruitful sources of misdirection are through *attention* and *suggestion*. Let us take attention first. A golden rule of magic is to gain the attention of your audience. Once you have done this you can distract it at will, and so provide necessary cover for secret manipulations. Numberless examples spring to one's mind. I read an engrossing book and am "lost" in the contents. The bell rings, a knock sounds, and I do not hear them. My attention is riveted upon my work. Only this morning, on opening a paper, I read that a diamond merchant had been robbed of a wallet containing many valuable stones. Owing to the crush in a train his attention was distracted and the wallet disappeared.

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A slate-writing medium requests a sitter to put a slate in his pocket for safe keeping. During the sitting his attention becomes so fixed in some minor experiment that he forgets all about the slate and does not know where it is when the medium asks him for it. The above are typical examples of lapses of attention occurring not only at mediumistic performances, but also in everyday life, and it is just this common human failing that is taken advantage of by magicians and mediums. Amongst the former the attention is usually kept or distracted through gesture or speech, but often mechanical aids are employed of which the public know nothing and which are especially deceptive. Unfortunately, I am unable to divulge some of the more brilliant methods of misdirection used by modern magicians and also by some of the cleverest mediums, but it may be said that an ordinary layman has absolutely no chance in detecting them unless he is fully acquainted with their principles and mechanism.

The second factor that I have indicated is that of *suggestion*. This is used throughout the whole of magic, and if man were not so infinitely suggestible, magic would become almost impossible. Take a very simple example of suggestion applied through repetition, a phenomenon concerning which Seashore [1] has made an interesting study. I take a ball and throw it up into the air and catch it again, saying as I do so, "One! Two! Three!" As it falls the second time I pocket it, but I make the same upward movement with my empty hand, and many of my audience still see the ball go up and disappear into space. Or take another example. Supposing I want a member of my audience to do something necessary for the success of the experiment. I should so arrange matters that in order to fulfil my purposes my victim should follow the line of least resistance. I suggest that he does so, and in nine cases out of ten he accedes to my desire, stoutly maintaining afterwards that his choice was perfectly free. This is what often happens in "spirit" photography. The accounts we get of sittings for "spirit" photographs as narrated by persons untrained in methods of trickery are not usually worth the paper they are written on. A sitter declares, for example, that his plates never left his hands for an instant. It is more than probable that he parted with them for several minutes whilst his attention was directed elsewhere. This sort of phenomenon has constantly been noticed in sittings for slate-writing and sealed-letter reading, and we shall return to it at a later place. It must be remembered, however, that those persons who visit "spirit" photographers and are taken in by them are in no way to blame. They cannot be expected to detect trickery when they are ignorant of its most elementary principles. They may go and really hold their

[1] C. E. Seashore. Measurement of illusions and hallucinations in normal life. *Studies from the Yale Psychol. Lab. Nr.*, Vol. III., 1895.

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plates the whole time, yet it will be useless, because the trick can be done just the same. The operator can easily discover from the sitter's demeanour how much he suspects, and it is often a rule that a sitter should tell the photographer exactly what tests he requires and what preparations he has made. This is in order to know what is the best trick to employ on that particular occasion, and if the preparations made by the sitter are too careful and his eyes are too sharp there is a blank sitting, as the "conditions" are bad. The "spirit" photographer is usually so wily a personage that not even a magician would be satisfied with his own unaided observation, but would so arrange matters that the human element was eliminated as far as possible, mechanical aids being sought to prevent fraudulent manipulations of the plates or camera. It must always be remembered that the medium has great advantages over the magician. It is commonly believed that magicians can do nothing without an elaborate stage and tons of machinery. This is certainly true as far as stage illusions are concerned, but it is entirely false as regards magic as a whole, some of the very best magical effects being presented with the audience all round the performer and in full light. The differences between the magician and the medium are so important that it will be well if we consider them more closely. The most obvious factor which differentiates the two parties is not one of personality or method, but of atmosphere and *raison d'être*. The primary aim of the magician is to amuse and entertain, whilst the professed objects of the medium are to obtain evidence of the presence of an unknown force or of the existence of spirit entities. The frame of mind in which a person goes to see magic and in which he resorts to a medium cannot be compared. In the one case he goes either purely for amusement or possibly with the idea of discovering "how it is done," whilst in the other he usually goes with the thought that it is possible that he will come into direct contact with the other world. This possibility naturally interferes with the accurate observation that he would make if he was bent on discovering the *modus operandi* of a practising magician. In the latter case he would know that the magician's "patter" was in order to distract his attention, whilst in the former he himself would have to enter into conversation with the medium and observe the ordinary rules of polite behaviour. A man who never looked a medium in the face, but insisted on gazing at his hands, not even raising his head when addressed, is not the sort of sitter to expect good results. Such conduct is not becoming when approaching so serious a subject as spirit-converse, and the sitter would probably depart without any recompense for the time and money expended.[1]

[1] I was once told by a very well-known English spiritualist that in order to get good results at séances the best state of mind for a sitter to adopt was that of "a generous ass"!

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A way of escape such as this is always open to the medium when in difficulties, whereas the magician, when his effect breaks down, has to use his wits to escape from such an awkward predicament and to bring off the "trick" as best he can. Another point which is worth noting is the methods used by mediums for tiring out their sitters. I remember when I was sitting for a spirit photograph we began by prayers and hymns of a wearying monotony, my patience being, however, finally rewarded by a splendid "extra" appearing upon the plate. My only surprise was that we did not get a dozen "extras," so ludicrous were the conditions and so inadequate the control. In other cases I have often sat two hours before anything happened at all, a method of procedure which would scarcely be tolerated by anybody from a professional or even amateur magician. During the period of suspense the average sitter becomes "nervy" and liable to illusions. He never knows what is going to happen or when he may be touched by spirit hands. His reasoning faculties are numbed, his observations are worthless, and he becomes the easy dupe of the medium in charge of the performance. Such a method of conducting operations would, of course, be impossible for the magician, and it is in just this atmosphere and *mis-en-scène* that the most important contrast appears between the legitimate deceiver and the fraudulent medium.

By far the best exposition of the point of view of one who did not fully appreciate the difficulties inherent in the task of exact observation was that put forward by Mr. C. C. Massey in the *Proceedings* of the S.P.R. in 1886. Amazed at the slate-writing performances of Eglinton and other mediums, he could not brook the notion that observers of average intelligence could be deceived over and over again in what he deemed to be the elements of sense perception. He refused to believe that such was the explanation of psychographic phenomena, and it led him to assert that he considered that "distrust of human observation, to the extent to which that distrust is now carried, is not justified by experience, which would be almost impossible for the simplest acts of attentive perception if it were justified." So sure was he, indeed, that such was not the true explanation, and so hurt did he seem at the apparent lack of faith in human credibility, that he writes in another place: "Surely there is a larger view, a deeper insight into this already long chapter, swelling to a prodigious volume, of human evidence, than is afforded by this miserable theory of conjuring, and cheating and imbecility." Dr. George Herschell also, in a document which is printed by Mr. Massey in the course of his paper, insists on the marvellous character of Eglinton's performances, and declares in a letter to Eglinton that conjuring at the best "only produces a mild parody of the very simplest phenomena under an entire absence of all the conditions under which these habitually occur at your séances." It was opinions such as these that supported Eglinton in his task of deceiving the

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public, and it was left to Dr. Richard Hodgson, in collaboration with that brilliant performer Mr. S. J. Davey, to blow up the whole fabric of credulous assertion and blind belief. The story of the successful imitation by normal means of the psychographic phenomena of Eglinton and Slade has been told times out of number, but a very brief resumé may be included here. Mr. S. J. Davey was a young man of delicate constitution who had become interested in spiritualism on account of the death of a friend who had passed away under somewhat distressing circumstances. Having attended some séances, he began to busy himself during his leisure hours in devising methods for imitating the phenomena that he had witnessed by normal means. In this work he was singularly successful, sitters who were unaware of the nature of the séances going away with the same marvellous stories that they had recounted when sitting with professional mediums. Dr. Hodgson at once saw how valuable such sittings would be if examined scientifically and critically, and what important information as to mal-observation, lapse of memory, and non-attention would be gleaned if sitters could be prevailed upon to write out their impressions as soon after the sitting as they conveniently could. This series of séances was arranged, and the results proved even more valuable than Dr. Hodgson had anticipated. Not only were the accounts of even the most careful sitters erroneous in many important details, but in certain cases mis-statements of facts were made with perfect honesty, but leaving the reader with a totally wrong impression as to what actually happened.

The main facts which go to make up the mistakes that untrained observers commit in such sittings as those for slate-writing and billet-reading have been admirably summarised by Dr. Hodgson, and the present writer cannot do better than go over the same ground, making minor additions where it seems necessary. As it is quite impossible here to review in detail all the mistakes which are liable to occur during séances of this kind, it may be convenient if we take just one very simple and elementary case of ordinary sense perception, namely, the examination of a slate by the sitter just previous to the production of a message. The errors concerning this apparently simple piece of observation have been arranged into four main groups: *Interpolation*, *Substitution*, *Transposition*, and *Omission*. When a sitter, after a slate-writing séance, proceeds to recall the various processes which he has witnessed, those immediately preceding the production of the message will appear to him especially important. In order not to appear to have been a careless observer, he will endeavour to show that he himself examined the slate so minutely before the appearance of the writing that the message could have been produced only through some supernormal agency. In his endeavour to do this, errors are apt to creep into his account of what actually took place, and, as has been

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said above, these mistakes can be arranged for the purpose of examination into four great divisions. Firstly, then, *interpolation*. A sitter at a slate-writing séance affirms that after three pieces of chalk were placed on the table he selected and placed over them himself a clean slate. In this case, as a matter of fact, the sitter never chose or arranged the slate at all, his sole act being to place his hand upon it *after* the medium had selected it. A purely imaginary action has here crept into the account, making the resulting phenomenon impossible of achievement through normal means.

Secondly, *substitution*. A sitter forgets exactly what had occurred previous to the appearance of the writing. In trying to recall the incidents imaginary ones come into his mind, and these are substituted for the ones which had actually occurred. Thirdly, *transposition*. A sitter at a certain period of the séance quite fairly examines a slate and finds it perfectly clean. Later on in the same sitting a similar incident to that immediately preceding the former examination of the slate takes place, except that on this occasion the slate is not actually examined by the sitter. In a very great number of cases we find that the sitter, in notes written down after the séance, affirms that an examination of the slate took place when, as a matter of fact, it did not, bringing over the memory of the first examination and transposing it on to the second. This is one of the commonest sources of errors in the accounts of séances as recorded by ordinary observers, and its constant occurrence renders the task of judging phenomena second-hand singularly difficult. Fourthly, *omission*. A sitter may affirm that a certain slate was in sight from the moment the first examination took place to the time that the writing was discovered. The fact that his attention was called away for a moment will be forgotten when the writing is finally revealed, and subsequently omitted when the account of what happened is written down after the séance.

The above comprise the main sources of error which are to be particularly guarded against in so simple a matter of keeping a slate within view after it has been cleaned on both sides prior to the appearance of writing. It can easily be seen from the above remarks how unsatisfactory the evidence of unskilled observers must necessarily be, and how in the case of many of the more difficult and complicated manipulations the observations of such persons become quite worthless. It may be said that the errors outlined above are merely those which are made by the sitter *after* the séance has taken place, and that no help has been given in assisting observers to detect fraud during a sitting. To this objection I would reply as follows. For the average observer the detection of a really first-class fraudulent medium is impossible. He simply will not know what to look for. In many cases he has to sum up in a few seconds all the possibilities of fraud that there are open to the medium in question and guard against

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them accordingly. As the ordinary sitter does not know what the possibilities of fraud are, his task becomes a hopeless one. His attention is distracted, his powers of observation are numbed, and he becomes the unwilling victim of his crafty opponent. Unaware of the principles of psychological deception, he sees what he is told to see and hears what he is told to hear. The nervous twitchings and loud sneezings under cover of which secret manipulations go forward to their final goal leave him unsuspecting to the last. It is in this way that the marvels associated with psychography and "spirit" photography are largely to be accounted for. Many sources of error are to be traced also to chance, coupled with carelessness on the part of the sitter, his own mistakes being turned against him as proof of the supernormal character of the phenomena. One of the best instances of this occurred at one of Mr. Davey's séances. The sitter, a Mr. Padshah, was desirous of obtaining his initial name upon one of the slates. This name in Persian happened to be *Boorzu*, and during the sitting Mr. Davey had scrawled across a slate what he had meant to be the word *Books*. Mr. Padshah immediately read into the word his own name of *Boorzu*, and was amazed at the extraordinary phenomenon.

Similar methods on a less impressive scale, and on a slightly different principle, are often used by magicians in minor experiments. A card, say the seven of clubs, is selected by a member of the audience, and after he has looked at it he replaces it himself in the centre of the pack, or if he likes he may take the pack in his hands, put it back and square up the cards. Taking the pack, the performer shows the bottom card, asks for the name of the one chosen, and on gently passing his hand over the surface of the bottom card it apparently changes to the one selected. As a matter of fact, the card which takes the place of the bottom card is not the chosen card at all, but through certain associations and by means of a special manipulation it is made to appear so, and in nine cases out of ten the observer would be willing to admit that it actually was the card he had selected. A somewhat similar mistake is often made in "spirit" photography, and is intimately connected with the mind's eye. Every tyro in experimental psychology knows the illusion which rests upon this principle. Thus  becomes  when looked at from a distance, the mind's eye supplying the necessary details which are wanting in the original. I was once shown an interesting example of this. Having visited a certain Midland "spirit" photographer, a sitter had returned with what he described as a remarkably lifelike portrait of his deceased son. On being given two recent photographs of the young man, together with the psychic "extra," I immediately compared them with the greatest care. As far as I could see, there was but the slightest trace of any kind or sort of resemblance, but what was even more curious was the fact that the two actual photographs of the youth in the flesh were

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so different that I should not have known that they were the same person had not the father assured me that such was the case. It was simply a matter of the mind's eye reading into vague outlines and shadowy features what it knows ought to be there. The same sort of illusion is common in materialising séances when one mask does duty for aunts and uncles, brothers and sisters, grandfathers and grandmothers, all of whom are duly recognised by the innocent sitters. It is upon these elementary principles of human psychology, which are, unfortunately, little known amongst the general public, that fraudulent mediumship finds a secure basis, and it is often also from these principles that the ignorant sceptic is apt to make the most unwarranted assumptions. For it seems an indisputable fact that both believers and sceptics in the reality of psychic phenomena refuse to acquaint themselves with those methods by which such phenomena can best be imitated. The earnest believer scouts the idea that "vulgar conjuring" bears any relation to the marvels of genuine mediumship,[1] and the sceptic regards the accomplished magician as a person who is really able to perform the impossible. It has been said with some degree of truth that, if a scientist is easily deceived by a fraudulent medium, a magician is as easily converted by a genuine one. In this connection the Naples report on Eusapia Palladino is especially important. To the mind of the present writer the criticisms levelled against this report have been altogether beside the mark.[2] It is scarcely conceivable that the three observers (Messrs. Feilding, Baggally, and Carrington) who were present on this occasion could have

[1] There are many spiritualists who are unable to tell the difference between genuine and openly fraudulent mediumship. Even when they are told that a certain experiment is performed by natural means they sometimes refuse to believe it. Sir A. R. Wallace thought Dr. Lynn's assistant was a medium (*Spiritualist*, Aug. 17th, 1877), and Stainton Moses declared that "it is sheer nonsense to treat such performances as Maskelyne's, Lynn's, and some that have been shown at the Crystal Palace, as 'common conjuring.'" Similarly, Mr. Joy doubted the trickery of Maskelyne and Cooke's imitation of the Davenports' performances (*Spiritualist*, May 15th, 1873), and in this he was supported by Messrs. Dixon and Coleman, such opinions being expressed as that "so-called conjurers . . . are also very powerful mediums," and that Messrs. Maskelyne and Cooke are the "best of living mediums" (*Ib.*, Dec. 18th, 1874; Oct. 8th, 15th, 1875). Even to-day there are certain spiritualists who believe that Mr. Harry Houdini is a powerful medium, because they cannot think how he makes his escapes from boxes and tanks, an opinion which reminds one of that held by Mr. Damiani, who thought that Giordano's box escape was the result of mediumistic powers (*Medium and Daybreak*, April 2nd, 1886, p. 212).

[2] I am here referring to those criticisms which are worthy of sympathetic attention. In order to understand the straits to which some sceptics are driven in their attempt to explain away this report, the following true incident may be found illuminating. I was one day discussing the report with a medical gentleman who prides himself on his sceptical attitude towards psychical phenomena. In his case there was very little difficulty in explaining away the whole of the published testimony. "You talk to me of the Naples report on Eusapia Paladino," he said. "Why Naples? Why do these things happen in Naples and not in London, the centre of the world? Tell me; why Naples?"

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been deceived by movements and manipulations which would have been absolutely necessary in order to produce the results as described. Anybody who has worked with the Hon. Everard Feilding or Mr. Baggally knows that to produce the phenomena which took place in Naples by trickery and not be found out would be an impossibility. The bulgings of the curtain and of Eusapia's dress are particularly striking from the magician's point of view, as he knows exactly what sort of apparatus is required for producing these phenomena and how best it could be concealed. For those who know nothing of magical processes criticism is easy. But for those who are actually acquainted with magical effects, and with the methods necessary for producing them, know full well the insuperable difficulties which would confront a performer who was asked to duplicate Eusapia's phenomena *under the same conditions and with the same observers*. It is quite possible that some reader will here lay this journal down and say to himself that surely all these phenomena were exposed in America, and that it is strange that I have omitted to mention it. As this misconception is very widely spread abroad, and is constantly being repeated, a word should perhaps be added at this point. Eusapia Palladino was never exposed in America in the way that some writers assert. European students had recognised for a long time previously that this medium would act suspiciously if she was not most rigorously controlled. In dozens of cases she was caught substituting a hand, and often herself used to say that she would do so unless the observers prevented her. The simple tricks that she used to play were well known before she visited the United States, and all that the American observers did was to rediscover with a great flourish of trumpets and with many newspaper puffs what had been apparent from the beginning. It is true that in a few instances they made more clear what had been previously rather obscure, but, generally speaking, the American sittings at which Eusapia was supposed to be exposed yielded nothing which had not been previously recognised. The experimenters themselves were in many cases totally incapable of judging the phenomena, and when those with a knowledge of trick methods were present their report is vitiated by their complete lack of appreciation of the hysterical factor. It must be candidly admitted that hysterics possess powers of trance deception which are in abeyance during their normal state. Such a condition certainly seems to have been present in the case of Miss Burton and was also active in the case of Eusapia. Although profoundly disagreeing with Dr. Hyslop's views upon Eusapia, and especially with his dislike and distrust of magicians, the importance he attached to hysterical states cannot be over-estimated. No one was more anxious to dismiss the magician from psychical research than the lamented secretary of the American S.P.R. In article after article he castigated both the magician and his methods, believing that no

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progress in psychic studies would be made until such standards of judgment had been finally discarded. For the school to which Dr. Hyslop belonged psychical research is the happy hunting-ground of the abnormal psychologist. Continental research, according to these American critics, is carried out upon radically wrong lines. To Dr. Hyslop the investigations in Europe of Eusapia and Eva C. were more or less amusing, simply because to him these mediums were hysterics, and therefore fit patients for the psychiatrist. What this school of thought never seems to realise is that hysteria is not interesting to everybody. There are many persons who are much more interested in working out the laws of telekinesis than in studying the mental condition of those persons in whose vicinity such movements are said to take place. These students naturally wish to make sure that these phenomena are not produced by normal means, and the magician can help them in this matter better than anyone else. The magician does not presume to say *why* a table rises without contact, or *why* the son of Dr. X used his feet and prepared his apports and knew nothing about it (*Jour. of Amer. S.P.R.*, Vol. vii., pp. 1-56). He merely records the fact that the table *did actually so rise*, and that the son of Dr. X *did actually prepare his apports beforehand*. Then, when the one class of students is satisfied, the abnormal psychologists can step in and discover exactly why these people behave as they do. To discard the services of the magician would be just as foolish as to discard the services of the psychiatrist. The American school thinks of a magician as a vulgar music-hall performer whose usual occupation consists in making puddings in tall hats. Such a picture is grotesque. No intelligent man would dream of calling in the comedy juggling clown to investigate the problems of psychical research. As I have indicated above, some knowledge of abnormal psychology is as necessary for the investigating magician as some knowledge of deceptive contrivances is useful for the abnormal psychologist. "Throwing the conjurer out of doors," as advocated by Dr. Hyslop, will help no one, and to the mind of the present writer will actually hinder instead of assist the progress of psychical research. For that class of student who wishes to unravel the mechanical laws underlying the physical phenomena the help of the magician is most certainly valuable. When we look back at the history of slate-writing mediumship, is it possible that we can overlook the benefits derived from a knowledge of the magic art? Even Dr. Hyslop himself admitted that in the case of professional frauds the services and knowledge of the magician have been of great public utility (*Jour. of Amer. S.P.R.*, Jan. 1913, p. 10). I confess that I am unable to understand how a professional medium can be dubbed a fraud until he is found out, and to discover his *modus operandi* the services of the magician are to my mind indispensable.

It seems doubtful whether even the witness of competent magicians

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would cause the occurrence of the physical phenomena to be admitted as an undoubted fact. There are certain persons whose scepticism is really a cloak for the blindest credulity. Thus Mr. Joseph McCabe, in his recent book (*Is Spiritualism Based on Fraud?* London, 1920), has collected together a great number of instances of mediumship which he thinks are all completely fraudulent. His treatment of Eva C., Daniel Home, and Mrs. Piper alone make the book worth reading, for it is only through carefully studying the writings of the complete sceptic that one is able to plumb the depths of his innocent credulity. Gentlemen belonging to this school of thought much resemble the most believing spiritualists. Fraud is to them what spirits are to the others—a satisfactory explanation of all supposedly supernormal phenomena. Fortunately, however, they can be passed over with a smile, although their contribution to the subject is perhaps of greater value than that offered by the convinced believer. The solution of the riddles of psychical research will not be arrived at through the instrumentality of such folk. That solution can only be unfolded through much laborious investigation and the exercise of an unwearied patience. A mass of material has already been accumulated, and is increasing year by year till it bids fair to reach alarming proportions. Yet the key which might make the whole intelligible still seems to elude our grasp with an exasperating evasiveness. It may very well be that there is no one solution to our problem, and that that strange grey world of twilight states and ghostly shapes has as complicated a structure as our own material universe. The movements of objects without contact, the supernormal information imparted by the trance mediums, the remarkable phenomena associated with psychometry—these and many other kindred mysteries may merely be indications, sign-posts, as it were, leading to another world. Perhaps before the close of the present century these phenomena, now inexplicable and elusive, may be classified and arranged according to scientific methods, and may have become an essential part of that division of knowledge to which each particularly belongs. To brand all psychical phenomena as fraudulent is as foolish as to declare that all are the work of discarnate intelligences. In no other subject is the exercise of the most fearless free thought more urgently required than in psychical research. With a balanced mind and sane judgment, coupled with the most determined resolution to weigh all in the scales of justice and truth, the investigator of the future need have little fear of the mockery or credulity of an ignorant world. With these principles set firmly before him, he may set out with a bold heart upon his curious quest, and, even if failure be his lot, he will surely be rewarded at least by the feeling that he has done something, however little, to raise the veil upon that mysterious uncharted country which has been the terror and delight of so many countless millions of the human family.

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MATHEMATICS AND PSYCHICAL RESEARCH

By H. Stanley Redgrove, B.Sc. (Lond.), F.C.S.

CATEGORICALLY to assert that Psychical Research has established the reality of the existence of disembodied intelligences is perhaps hardly possible to one who wishes to advance no further in speculation than he is compelled by the facts of the case. On the other hand, this, I think, may be said without contradiction: that whilst some of the facts brought to light by Psychical Research may be adequately explained in terms of the already-known forces of nature plus human credulity and human deceitfulness, and many more in terms of the theory of subconsciousness, the spiritualistic hypothesis alone is capable of embracing the whole. This hypothesis may not be true, but it does seem to fit the whole of the facts better than any other. In accordance with the canons of scientific method, therefore, I think it is well for us to accept it until (if this should happen) a more satisfactory hypothesis is forthcoming.

It must be noticed, however, that the sort of spiritual world needed by the facts and postulated by the theory is in many respects a very different world from the heaven and hell of official theology. It is, indeed, rather the sort of spiritual world asserted to exist by what, on the hypothesis, are the inhabitants of this world itself. This feature of self-consistency which characterises the records of Psychical Research interpreted in terms of the spiritualistic hypothesis is, to my mind, one of no little importance, which has, perhaps, not been sufficiently emphasised in discussions on the matter. Indeed, the divergence between spiritualistic doctrines and those of orthodox Christianity is in itself a matter of considerable interest. As the late Professor De Morgan remarked in the Preface to his *From Matter to Spirit*: "In spite of the inconsistencies, the eccentricities, and the puerilities which some of them [the disembodied intelligences *ex hypothesi* communicating through spiritualistic mediums] exhibit, there is a uniform vein of description running through their accounts; which, supposing it to be laid down by a combination of impostors, is more remarkable—even marvellous. Agreement is one part of the wonder, it being remembered that the 'mediums' are scattered through the world; but the other and greater part of it is that the impostors, if impostors they be, have combined to oppose all the current ideas of

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a future state in order to gain belief in the genuineness of their pretensions!"

One further notable fact concerning the nature of the spiritual world according to modern Spiritualism must be recorded, namely, that whilst the spiritualistic theory differs so greatly from orthodox religious teaching, it is in so many respects in close agreement with the views put forward, and said to be based upon vision, by Emanuel Swedenborg in the eighteenth century. I do not mean to say that modern Spiritualism appears to have done anything to confirm Swedenborg's specific theological doctrines; but its account of the spiritual world—the spiritual world which fits the facts of Psychical Research so admirably—of the inhabitants of that world, their relations to each other and to us, is in all essentials identical with that of the Swedish seer.

I have said that the spiritualistic hypothesis more satisfactorily than any other accounts for the whole of the facts of Psychical Research. I do not mean to say that in itself it constitutes, in the scientific meaning of the term, an explanation of these facts. It is I think, only the first step towards this; much remains to be done in clarifying its concepts and in working out those correlations which from the scientific point of view are the essence of "explanation." Spiritualism as a theory suffers from vagueness—we read of psychic forces and psychic spheres, higher and lower, and (interminably) of vibrations (that blessed word "Mesopotamia"!) without having in reality the least idea of what is meant, and with the suspicion that the writer's mind is in a not dissimilar state from our own. As I have intimated, for the man of science, "to explain" means to correlate. For example, he explains the falling of bodies by means of gravitation. This means that he shows that all bodies behave in a certain way under given circumstances, that they exhibit behaviour which may be expressed by means of a mathematical formula. The question hwether Newton's law of gravitation or Einstein's is true is a question hwether the one or the other correlates the larger number of facts of behaviour. It may, indeed, be said that no theory is satisfactory until it has been mathematically expressed. Mathematics is a universal language. It is symbolic logic; and the tremendous advances which have been witnessed during recent years in the sciences of Physics and Chemistry especially have been due very largely to the realisation on the part of physicists and chemists of this fact. Spiritualistic theory, then, if it is to achieve its end, must become mathematical; and that this is possible can be denied only by those who also deny that the hypothesis in question is logical.

Now, in attempting to accomplish this end we may with advantage turn to Swedenborg, because we find associated with his account of the spiritual world certain metaphysical theories which are characterised by a very satisfactory degree of precision. In fact, from one of

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his early works, namely, his *Hieroglyphic Key to Natural and Spiritual Mysteries*, it appears that he himself realised the possibility of expressing his metaphysical ideas mathematically; but he failed to follow the matter up. The theories of Swedenborg in question are those known as the "Doctrine of Degrees" and the "Doctrine of Correspondences," with which, no doubt, the majority of my readers are acquainted, but which it may be useful very briefly here to summarise. According to the Doctrine of Degrees, two absolutely distinct types of degrees exist throughout the universe, namely, continuous degrees and discrete degrees. The first, as their name implies, exhibit continuity, and permit of comparison with one another. Such are degrees of temperature, colour, light and shade, position, etc., etc. The second type of degrees are discontinuous and incapable of comparison: they are related as end, cause and effect. The relation between the Spiritual World and that of Nature is the relation of one discrete degree to the other: spirit is the cause, matter is the effect. Within each of these degrees, not only lesser discrete degrees, but also innumerable continuous degrees exist; and because of the causal relation between the two worlds, there is a one-to-one correspondence between the elements of the one world and those of the other. That is to say, to every element of the physical world there is a corresponding element of the spiritual world, the relation between the physical element and the physical world being identical with that between the spiritual element and the spiritual world. Thus, spirit, in other words, is related to spirit in all those innumerable ways in which matter is related to matter, or, rather, it should be said matter is related to matter in innumerable ways because spirit is so related to spirit. On the other hand, however, between spirit and matter no relation, save the relation (transcending experience) of cause to effect, exists. This, I am afraid, is a very bald statement of a most interesting philosophical theory, but it will perhaps suffice for our present purpose. Spiritualism teaches that spirit presents to spirit a similar appearance as does matter to our sight. Thus, to spiritual sight a spirit appears as a human being (not a winged biped, as the artists of orthodox faith would have us believe), and the spiritual world appears not so very dissimilar from this. To natural sight, however, the things of the spiritual realm are non-existent. These and many similar curious facts (for such they are asserted to be by both Swedenborg and Spiritualism) are explained by Swedenborg in terms of his Doctrines of Degrees and Correspondences; and I think it must be admitted that if these doctrines can be expressed mathematically, Psychical Research will be enriched by a conceptual tool of considerable value.

Attempts have been made, with some considerable measure of success, mathematically to bridge the gulf between matter and spirit by means of the geometrical concept of the higher dimensions of

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space. The theory that spirit transcends the limitations of matter by a fourth dimension is an old one. It was, for example, advocated by Henry More, the Cambridge Platonist, in opposition to the views of Descartes. The best modern works on the subject are, I think, Claude Bragdon's *Four Dimensional Vistas* (New York, 1916), and W. Whately Smith's *A Theory of the Mechanism of Survival* (1920). For a general discussion of the properties of a fourth dimension of space, C. H. Hinton's *The Fourth Dimension* (1906) should be consulted, and I have attempted a chapter on the subject myself in *Matter, Spirit, and the Cosmos* (1916). H. G. Wells's idea of time as the fourth dimension appears, however, to be confirmed by recent research, and forms an essential part of Einstein's Theory of Relativity. It seems necessary, therefore, to postulate a fifth dimension if what I may perhaps call "the geometrical mode" of conceiving spirit is to be adopted. There is no mathematical objection to this; Mathematics recognises no limit to the number of possible dimensions, and spirit may, in fact, be of infinite dimensions.

I shall, however, in the present paper endeavour to explain another conceptual tool supplied to us by Mathematics whereby we may, I think, bridge the gulf between matter and spirit, and which may be found of utility by Psychical Research on its theoretical and explanatory side. The theory in question was first put forward by myself in my *A Mathematical Theory of Spirit* (Rider, 1912), to which the interested reader who desires information concerning it beyond that here given may be referred. For certain developments I am indebted to Professor Herbert Chatley, B.Sc.; and Dr. Carrington, it is interesting to note, has devoted the best part of a chapter to the theory in his recently published *Modern Psychical Phenomena: Recent Researches and Speculations* (Kegan Paul, 1919). It would, however, be a mistake to suppose that there is any opposition between the higher-dimensional hypothesis and that which I have here to offer. In the solving of such difficult problems as are presented to us by Psychical Research, of every organon of thought, mathematical or otherwise, which can be pressed into service, the maximum use should be made. If Mathematics offers us two such tools—suggests two modes of attack—so much the better. And it seems to me highly probable that these seemingly different ways of attempting the conquest by thought of the problems of spirit will, in the end, coincide, and thus mutually confirm each other's validity.

The idea that numbers are essentially symbols enshrining a hidden meaning and significance—that their mystery is the mystery of the Cosmos—is of considerable antiquity. With the history and forms of this idea—the important part it played in the speculations of Pythagoras and the Kabalists, and in Chinese philosophy and superstition, to mention only its most striking manifestations—I do not

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here propose to deal. We cannot, however, fail to observe that the Pythagorean idea that number is at the basis of all things has received tremendous confirmation in the modern atomic and electronic theories of matter and the quantum theory of energy. Indeed, these theories suggest the theoretical possibility of representing every physical existence by means of a system of numerical ratios in so effectual a manner that, knowing these ratios, we should know all that is knowable concerning the existence in question. In this sense we may, I think, quite rightly regard Nature as the embodiment of number, and assert that her laws are the manifestation of the laws of number. Beyond this, however, it does not seem possible to go. The attempts to attach mystical and profound significations to the individual numbers,[1]—in fact, the whole of what may be called the occult philosophy of numbers—in spite of much that is interesting and even impressive, are vitiated by the fact that they are one and all bound up with the denary scale of notation. But there is nothing absolute or unique about this scale: it is only because man has ten fingers that he counts in tens and powers of ten, instead of in sevens, or eights, or (what would be most convenient) in twelves, or some other number. "A mystical evasion of this difficulty," writes Professor Chatley, "may be arrived at by assuming a dual and fivefold propagation of the streams of life, but there remains a suspicion that these ideas have been expressed through the medium of 'ten' rather than that 'ten' should be their expression. Finally," he concludes, "we come to the root of the matter. Is there any virtue in Numbers, as such? Unity and Duality are most certainly preponderating characteristics in all things, but once the number 'two' is exceeded, in the attempt to numeralise the universe one has a natural tendency to make an arbitrary selection. If you take any of the lists compiled by Westcott, Sepharial, or Kozminsky, almost all the references under one number will be found to refer to IDEAS evolved by men, not to cosmical or even psychic phenomena. Take 'Seven,' for example: There are seven planets ACCORDING TO THE ANCIENTS, there are seven TRADITIONAL days of the week, there are seven angels ACCORDING TO MEDIÆVAL THEOLOGY, etc. . . . Redgrove's *Root of Minus One* stands out like a clear star amongst other lights which look suspiciously artificial."[2]

What, the reader will perhaps ask, is this "root of minus one," and

[1] These significations have naturally been made the basis of various divinatory systems. Interested readers should consult Sephatial's *The Kabala of Numbers* (Rider, 1914) and Dr. Isidore Kozminsky's *Numbers: Their Magic and Mystery* (Melbourne, 1905). [Modern psycho-analytical research shows that these "occult" and "magic" numbers are probably determined by processes of unconscious symbolisation in the same way as other signs and symbols of reputedly magical properties.—ED.]

[2] Professor Herbert Chatley, B.Sc.: "The Law of Number," *The Occult Review*, Vol. XVIII., pp. 39 and 40 (July, 1913).

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in what manner does it accomplish the solution of the problem that confronts us ?

Let us ask ourselves exactly what this problem is. "Matter," wrote Carlyle, in *Sartor Resartus*, "exists only spiritually, and to represent some idea, and *body* it forth." This agrees with the teachings of Swedenborg and the spiritualists. Matter is *caused* by Spirit, or, to speak mathematically, matter is a function of spirit. Moreover, it would seem, from the standpoint of the Doctrine of Correspondences, to be a function of a very simple type, like ax or $\frac{x}{a}$, where x (the variable) is multiplied or divided by a (a constant), if this doctrine be interpreted (as seems the only possible course) to mean that the ratio between material representative and spiritual prototype is everywhere constant and the same. The question is, What is this constant ratio ? since, from the standpoint of the correlative Doctrine of Degrees, it must be utterly unlike every ratio representing the relation between any two spiritual existences, or any two material existences. We have so to represent spirit and matter, say, by x and y, that by the operation of x on x, y may be produced ; whilst by no operation of y on y, whether by means of addition or subtraction, multiplication or division, must it be possible to produce x. Moreover, we have seen that Nature, in a sense, is the embodiment of number—to symbolise her objects the whole of number, using the word as it is ordinarily understood, is required, unless we except numbers more gigantic, say, than the total numbers of unit elements of matter (unit electric charges ?) and quanta of energy in the Universe—numbers so great that we are quite incapable of appreciating or of utilising them.

The problem of the mathematical symbolisation of spirit, or the relation between matter and spirit, would, therefore, seem to be one of extreme difficulty, or even perhaps impossible. The solution that I venture to offer is, however, so simple, that I am surprised that it was not suggested long before it occurred to my own mind.

Everyone having the least rudiments of education is acquainted with at least two [1] sorts of numbers, namely whole numbers (or integers) and fractions. Mathematics, however, introduces us to several sorts of numbers other than these, numbers which, as they were discovered, were each in turn treated as figments of the mathematician's mind, until applications of practical utility for them were in due course discovered. The title "imaginary" is reserved for the last, speaking chronologically,[2] although the practical utility of such numbers is

[1] I should perhaps have said "three," because everyone is acquainted with both ordinal and cardinal numbers, though they may not be explicitly aware of the difference between them. This distinction is not of importance in the present discussion

[2] Perhaps I should say "penultimate" instead of "last," if the recently discovered infinite numbers are to be regarded as in a separate class from finite numbers.

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beyond dispute. The name, moreover, is particularly absurd in this application because, as we shall perhaps see in a moment, "imaginary" numbers are by their very nature impossible for us "to imagine," *i.e.*, to form a mental image of. I shall be compelled, however, to use this in every way objectionable name "imaginary" for this sort of numbers, but I do hope the reader will notice and bear in mind the force of the inverted commas. It is with "imaginary" numbers that my chief concern lies, but first of all it will be necessary to say something concerning the other types of numbers dealt with in Mathematics.

"Mathematics," writes the Hon. Bertrand Russell, "may be defined as the subject in which we never know what we are talking about, nor whether what we are saying is true."[1] This is only his jocular way of emphasising the fact that Mathematics is nothing more or less than symbolic logic. The question of "truth" enters when we *apply* Mathematics. Nature presents to our view diverse quantities and relations—Mathematics deals with diverse numbers and functions corresponding to these; numbers and functions of which truth can be asserted only within their appropriate sphere of application.

For instance, if I am given a problem the answer to which is the number of runs scored by a certain player at a cricket-match, then the answer must be integral: a fraction would be meaningless and absurd. But if, on the other hand, the problem is to find the batting average of the player, probably the number will be a fraction.

Now, let us suppose that the problem is to find a certain length measured in terms of a given fixed length, say one foot long. Then quite probably the required number will be neither an integer nor a fraction. Imagine, for instance, a tesselated pavement, made up of identical triangular tiles of such a shape and size that two of them placed together form a square 1 foot by 1 foot. Two sides of each triangle will be each 1 foot long, whilst the length of the third and longer side must be such a number of feet that this number squared is equal to 2. Very well! We have learnt in Arithmetic how to extract the square root of a number, and we proceed to extract the square root of 2. We get 1·41421 . . . and then it begins to dawn on us that we have started on an endless and therefore impossible task. The square root of 2 (and this also is true of the square and other roots of the majority of integral numbers) is neither an integer nor a fraction. We can work out fractions which approximate to it with increasing degrees of accuracy, such as 1·4, 1·41, 1·414, etc., but we cannot get a fraction equal to it exactly.

Numbers like $\sqrt{2}$ in this respect are called incommensurables. Other, and most important, incommensurables occur in the study of series.

[1] Bertrand Russell, M.A., F.R.S.: "Mathematics and the Metaphysicians," *Mysticism and Logic, and other Essays* (1918), p. 75.

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Consider the infinite series:

$$\tfrac{1}{1} + \tfrac{1}{2} + \tfrac{1}{3} + \tfrac{1}{4} + \tfrac{1}{5} + \ldots\ldots\ldots\ldots$$

It can be proved that, however large a number one chooses, that number can be surpassed by adding up sufficient terms of this series. (The reader can, if he has the patience, prove it for any number he pleases by actual addition; but he will certainly find it less trouble to master the mathematical proof, which will be found in any text-book dealing with convergency and divergency of series.)

The case of the series

$$\tfrac{1}{1} + \tfrac{1}{2} + \tfrac{1}{4} + \tfrac{1}{8} + \tfrac{1}{16} + \ldots\ldots\ldots\ldots$$

is, however, quite different, for we find that, however many terms we add up, the sum is never quite equal to 2, though we can, by taking more and more terms, make it approach as near to 2 as we please—thus, three terms add up to $1\frac{3}{4}$, which is $\frac{1}{4}$ short of 2; whilst 10 terms add up to $1\frac{511}{512}$, which is only $\frac{1}{512}$ short of 2. We say, therefore, that the limiting value of the sum of this series, as the number of terms approaches infinity—or, for short, the sum of the series—is 2.

Now, many series are known whose sums, like the sum of the above series, approach to finite limits, but in the case of which these limits are incommensurables. Two very important ones are the following:

$$e = 1 + \tfrac{1}{1} + \tfrac{1}{1\times2} + \tfrac{1}{1\times2\times3} + \tfrac{1}{1\times2\times3\times4} + \ldots\ldots\ldots$$

and

$$\pi = 4 - \tfrac{4}{3} + \tfrac{4}{5} - \tfrac{4}{7} + \tfrac{4}{9} - \ldots\ldots\ldots$$

The sum of the first (always represented by the letter e) is the base of the natural system of logarithms, and is nearly equal to the fraction 2·7183. The sum of the second (always represented by the Greek letter π) is the ratio between the circumference and diameter of any circle, and is nearly equal to the fraction 3·1416. But whilst we can find fractions nearly equal to e and π—sufficiently accurate for all practical purposes of computation and measurement—no fraction can be found exactly equal to either of them. Like $\sqrt{2}$ and many other roots, e and π are neither integers nor fractions, but another sort of number.

A number of indivisible individuals, such as persons, or runs at cricket, must be integral; but the ratio between two integers, such as an average, may be either integral or fractional; whilst the ratio between two magnitudes, such as two lengths, may, in addition, be an incommensurable. But none of these numbers can be negative. Let us suppose, however, that a person, wishing to walk from London to Brighton, takes in error the Great North Road, and the question is asked, after he has walked 10 miles, How far has he progressed on his journey? The only possible answer is — 10 miles, for he has now to travel 10 miles *more* than when he started. In general, then, if we

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wish to represent the position of a point in a line relative to a fixed point, arbitrarily taken as zero, then we must make use of negative quantities, such position implying not only distance but also sense (*i.e.*, direction limited to one dimension). The same applies to the measurement of any physical magnitude or intensity which can be represented by a straight line, like electrical potential, or temperature. Thus, in the measurement of temperature, the melting-point of ice, when the mercury-barometer stands at 760 mm., is arbitrarily taken as zero. Temperatures above this, then, are represented by means of positive numbers; temperatures below, by negative numbers.

It will be seen that integers, fractions, and incommensurables, both positive and negative—all of which are termed "real" numbers—form an absolute one-dimensioned continuum, stretching from minus infinity to plus infinity. It is just because integers and fractions are not continuous that they fail for the representation of all possible lengths. The integers are like a series of steps, going ever upwards. By means of fractions we can shorten the height of the steps as much as we please, but we never convert them into a smooth continuous slope. Only the incommensurables accomplish this, and thus incommensurables are necessary to represent the continuous thing we call "length."

At this point, I am afraid that the reader (if he has not done so already) will object and accuse me of inconsistency. He will point out that, whilst the theory that length and other physical magnitudes and intensities are continuous agrees very well with Swedenborg's Doctrine of Degrees, it does not agree at all with the atomic and electronic theories of matter and the quantum theory of energy, which I have just invoked in order to justify the speculations of Pythagoras. For if there is a least possible unit of matter and a least possible unit of energy, then physical magnitudes and intensities cannot be truly continuous, but can increase or decrease only by the addition or deprivation of these least possible quantities. A few considerations, however, will, I think, clear me of this charge, and show that the inconsistency is seeming only. In Swedenborg's theory, the idea of "continuous" is contrasted with that of "discrete"; in physics it is contrasted with that of "discontinuous"; and "discrete" and "discontinuous" are by no means identical concepts. In Swedenborg's theory, between two discrete degrees no relation is possible save that of correspondence; but two discontinuous physical entities may be identical or numerically related. Thus in Swedenborg's works the term "continuous" must be understood in a somewhat wider sense than that in which it is used by modern physicists. In the second place, we have to bear in mind that, behind the discontinuity of matter, modern science postulates the absolute continuum of the ether. The lengths of the different sides of the tiles used in my

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illustration above would actually not be incommensurable one with the other, because, apart from all such matters as the difficulty of manufacture, the discontinuity of matter would necessitate their departure from geometric exactitude. But it is possible to conceive of figures of the exact shape in question existing in the ether. It may be urged that Einstein has abolished the ether, though the relativists are by no means agreed about this themselves; but in any case an absolutely continuous medium has to be postulated, even if it be the space-time continuum itself.

In order to proceed further with my argument, it will be necessary to utilise the laws concerning the multiplication of positive and negative numbers. To establish these would entail a long and possibly uninteresting digression, so that I will ask the indulgent reader either to accept the accuracy of my word, or else to look up the matter for himself in any text-book of Algebra, and I will content myself with barely stating the laws in question. These may be summarised shortly as follows: The product of two numbers of like sign is a positive number; that of two numbers of unlike sign is a negative number, the magnitude of the product being independent of the signs of the two factors. Thus:

$$+2 \times +2 = +4.$$
$$-2 \times -2 = +4.$$
$$+2 \times -2 = -4.$$
$$-2 \times +2 = -4.$$

Let us now suppose that we are presented with the problem of solving the equation

$$x^2 + 1 = 0,$$

or, what is the same thing,

$$x^2 = -1.$$

We have to find a number such that when it is multiplied by itself the product is—1. But on referring above we find that there is no positive or negative number which will do this, since, whether the number chosen is positive or negative, the result of multiplying it by itself will always be positive. The early mathematicians said that the solution to the equation was impossible, that it was absurd, just as they called $\sqrt{2}$ absurd before a use for it was discovered. The modern mathematician is wiser, and he realises that the solution of this equation is a new number, entirely different from all the types of numbers we have hitherto considered. To distinguish it from these he labels it "imaginary," and represents it by the symbol i.

Three important and extraordinary properties of i call for immediate attention:

(1) In the first place, we must notice that the square root of any negative number can be expressed in terms of i. For example, $\sqrt{-4}$

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is the same as $\sqrt{-1} \times \sqrt{4}$, *i.e.*, $+2i$ or $-2i$.[1] Thus, i is the basis of a whole series of numbers, forming an infinite one-dimensioned continuum, and having a one-to-one correspondence with the infinite one-dimensioned continuum of "real" numbers.

(2) "Imaginary" numbers are incapable of comparison with "real" numbers. We cannot approximate thereto by means of fractions, as in the case of incommensurables. i is neither greater nor less than 1 (or any other "real" number), nor is it equal thereto.

(3) Whilst by no arithmetical process whatever—whether it be addition, subtraction, multiplication, or division—can we pass from a "real" number to an "imaginary," the reverse change is the simplest possible matter. Thus $i^2 = -1$; and i^4, or $i \times -i$, $= 1$. This shows that there is a sort of absolute superiority pertaining to "imaginary" numbers. For instance, a being living in a world in which "imaginary" numbers were, so to speak, the normal and natural numbers, would, almost at the beginning of a study of arithmetic, discover "real" numbers and the laws concerning them. On the other hand, man, who lives in the world of "real" numbers has only discovered "imaginary" numbers at a late stage in his studies and by an effort of mind which proves him to be in some way superior to the world which he inhabits.

The reader, I think, will at once perceive how exactly the relations between "imaginary" and "real" numbers symbolise the relations between spirit and matter according to the Swedenborgian theory. Swedenborg asserts that the worlds of matter and spirit are absolutely distinct or discrete—nowhere merging one into the other; that spirit is related to matter as cause is to effect, and, hence, that there is a one-to-one correspondence between the constituents of the two worlds. "Imaginary" numbers and "real" numbers form two absolutely distinct or discrete series, meeting nowhere save at 0 or nothing, between which a one-to-one correspondence exists; and, whilst by the operation of an "imaginary" number on an "imaginary" number a "real" number may result, the operation of a "real" number on a "real" number can never produce an "imaginary." The requirements of Swedenborg's theory are thus exactly fulfilled. By means of "imaginary" numbers, this theory can be accurately and adequately mathematically symbolised and expressed; and the validity of this statement, I would point out, is in no way affected by the truth or falsity of Swedenborg's theory. That must be settled by Psychical Research. As I have intimated, Swedenborg's theory is, to my mind, the best working hypothesis; and, since it is capable of mathematical representation, it ought to be capable of development

[1] Any root of any number can be expressed in terms of "real" and "imaginary" numbers. Numbers partly "real" and partly "imaginary" are called "complex."

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by mathematical means. This follows at once if the nature of Mathematics as symbolic logic is realised. Psychical Research, therefore, has at its hand a most powerful mental tool, which it is, surely, worth while to employ to its fullest extent.

One objection that may occur to the reader to the symbolising of spirit by means of "imaginary" numbers must here, however, be met. It may be urged that an application has already been found for "imaginary" numbers in the mathematical science of Quaternions, in which "imaginary" numbers are used to represent *directed* magnitudes; *i.e.*, magnitudes having direction in more than one dimension.[1] But—to repeat it once again—Mathematics is symbolic logic, and the fact that one application has been found for one of its symbols or laws does not debar us from making others. If, when I found that the law $3 + 2 = 5$ was true for beans, I was, therefore, debarred from applying it to pence, or pounds-weight, or days, I should be in a very unfortunate predicament. Moreover, is not the difference between a scalar and a vector quantity, that is to say, between one which has magnitude only and one which has also *direction*, not altogether unlike that, *ex hypothesi*, between matter and spirit?

Briefly then, I suggest that, just as physical existences may be symbolised by means of "real" numbers, so may corresponding spiritual existences be symbolised by corresponding "imaginary" numbers. This theory suggests to us many new lines of research and speculation. With its many implications and applications I do not propose here to deal at any length, but it will be useful to see what light it sheds on the problem of appearance and reality, especially in relation to spiritual existences, as in the phenomena of Clairvoyance, for which purpose I shall summarise §§ 48-50 of my work, to which reference has already been made.

Our knowledge of the material world is relative, since the appearance of things depends not only upon the things themselves, but also on the sense-organs by means of which they are perceived. In other words, the appearance of a thing depends upon the relation between the thing perceived and the sense-organ by means of which it is perceived, and the same may be said of spiritual perception. In all cases a wrong point of view inevitably results in a distorted perception of things. Mathematically, then, we may represent appearance by a ratio, or at any rate a function of a ratio. Now in the case of both physical perception and spiritual perception, this ratio will be repre-

[1] As I have pointed out, in a one-dimensioned continuum only two directions are possible: but in a two or higher dimensioned continuum the number of possible directions is infinite. There is, therefore, a radical distinction between direction in a continuum of one dimension and that in a continuum of more than one dimension. The word "direction" is therefore properly limited to the latter, the former being called "sense."

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sented by a "real" number, for the ratio between two "real" numbers is a "real" number, as also is that between two "imaginary" numbers. The first ratio symbolises the appearance of matter for physical senses, the latter that of spirit for spiritual senses: in each case the appearance is represented by the same sort of number; *i.e.*, it belongs to the same category of existence. On these lines, it seems to me, may be explained the fact that spirits appear to clairvoyant sight like men and women do to physical sight; and the quasi-materiality (*i.e.*, materiality in appearance) of the spiritual world as described in mediumistic communications, which has so often been urged against their validity, may be similarly explained. Moreover, we see that appearance is represented by means of "real" numbers; that is to say, "real" numbers symbolise the phenomenal world, whilst "imaginary" numbers symbolise that of the noumenal. This, it is interesting to note, is quite in accordance with the doctrine that makes the whole physical universe a phenomenon, since we see that both a physical entity and its appearance are represented by the same type of number. "By the same type of number"—not necessarily by the same number, since the ratio between two numbers is identical with the first of these only in the case in which the second is unity. From this we may conclude that, whilst, as concerns the physical world, appearance and reality are not necessarily identical, they are not wholly dissimilar, and there is a physically real connection between them; which seems to agree exactly with the teachings of modern Science. As concerns the spiritual world, however, exactly the opposite of this must be inferred, for whilst spirit itself is symbolised by "imaginary" numbers, its appearance for spirit is symbolised by "real" numbers. That is to say, in the spiritual realm appearance and reality are radically different, being related only by correspondence. This seems to agree with the teachings of Swedenborg and the spiritualists. Speaking generally, therefore, it appears that the attempt to solve the problem of appearance and reality by the mathematical means I have suggested leads to results in accordance with what may be regarded as the best-established views and suggests the resolution of certain apparent contradictions. Of course, I do not pretend that I have done more than touched upon the problem and hinted at its solution in what I have said above; but my object is not so much to solve any difficulties or outline any philosophy of spirit, as to suggest a mode of attack which may be found useful by those who wish to co-ordinate and explain the puzzling facts brought to light by Psychical Research.

It is in this spirit, with the desire that research in the widest sense of the word may be stimulated, that I will terminate what I have to say by offering two or three speculations, which may or may not ultimately prove to be of value, but which I think are worth while

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following up in the hope that the former case will prove to be true. For the first I am indebted to Prof. Herbert Chatley.[1]

Professor Chatley points out that the so-called transcendental functions of Mathematics possess certain quasi-spiritual properties, such as rhythm or periodicity. A very simple function of this type, which is of fundamental importance in Trigonometry, is the function sin x. If we give to x gradually increasing ("real") values, we find that sin x passes through a certain series of ("real") values, which series of values is then repeated over and over again for ever. We can represent these changes graphically by a sort of wavy line. Now, the interesting thing to notice is that, in order to represent sin x algebraically, we have to make use of the "imaginary" unit i. Thus:

$$\text{Sin } x = \frac{e^{ix} - e^{-ix}}{2i}$$

The only alternative is to use an infinite series of real numbers. "The spiritual analogy," writes Professor Chatley, "is fairly obvious to anyone who realises the nature of the symbols," adding that "in this connection Leibniz's definition of Divinity as 'the infinite differential' is relevant."

My second speculation has reference to the nature of time. In Einstein's theory we are told that the world is a four-dimensioned continuum of which space and time are co-ordinate elements. This, however, is not quite an accurate description of the Einsteinian world. It is found that if time is taken as the fourth co-ordinate, the geometry of the time-space thus obtained diverges from that of Euclid in a most remarkable manner. It is true that, if we follow Einstein through the special theory of relativity to the general theory, we are obliged to give up Euclid's geometry anyway. But the divergences from Euclid's system that are thereby necessitated are local divergences merely, produced by, or giving rise to (either view is permissible), gravitational fields. The divergence from Euclid's system occasioned by taking time as our fourth dimension is of quite a different nature from this. It is not local, nor has it anything to do with gravity. Moreover, the divergence only appears in such sections of time-space as contain the time dimension, and not in any others. This anomaly can be entirely eliminated if with Minkowski (and Einstein, I gather, also approves of this) we take, not time for our fourth dimension, but time multiplied by the "imaginary" unit i. i, therefore, would seem to be a factor capable of converting time into space. Does this account for the fact that time appears to us to be so very different from space? Does it mean that time is related to space in a manner somewhat similar to that in which spirit is related to matter? This idea would appear to agree very well with Professor Alexander's speculation of time as the

[1] See *The Occult Review*, Vol. XVII., p 108 (Feb., 1913).

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soul of space,[1] as also with the Bergsonian philosophy; but it seems difficult to harmonise with the teachings of Swedenborg, to whom space and time were both equally appearances.

Finally, it may be suggested that the method of mathematical symbolisation I have outlined may be applied to the clarifying of such concepts as psychic force and psychic energy. I have already very briefly attempted something in this way in a letter on "The Nature of the Will," published in *The Occult Review* for May, 1914 (Vol. XIX., pp. 290 and 291). I refrain from repeating this line of speculation here, partly because I can see an apparently irreconcilable contradiction between it and what I have above suggested concerning the nature of time, and, more especially, because Einstein's work has introduced such profound modifications in scientific views of the physical universe, that it will be necessary for all of us to reconsider and redefine what we mean by physical force and physical energy; and before this is accomplished, it seems futile to attempt any definition of psychic force and psychic energy.

This is the sum of what I wish to say. Much of it, no doubt, is of a highly speculative nature; but if it shall prove in any way conducive to research, if it shall enable merely one small fragment of the Unknown to be conquered by the human mind, I shall feel well content.

[1] See *Space, Time and Deity*, by S. Alexander, M.A., LL.D., F.B.A. (1920).

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FAITH-HEALING AND SUPERSTITION

By David H. Wilson, M.A., LL.M.

THE fundamental difference between the civilisation of the present day and the civilisations of the past would seem to lie not in intellectual achievement, nor in religious and moral enlightenment, nor in political and social structure, but in something else; in some fact which presents not merely a difference of modification or degree of development in these directions of human growth between one age and another, but a difference of kind. The radical distinction of which we speak is found in a change of purview whereby is shut out from the scene of our practical life the intrusions of supernatural agency. By this change of the axis of mental vision we necessarily come to regard the working of natural elements and forces as sufficient explanation of the physical phenomena which affect us in various ways for good and for ill in our every-day relations with the outside world. This substitution of the natural for the supernatural in mundane affairs (the distinguishing feature of modern civilisation) is the essential condition of being of the physical sciences, whose development is one of the chief characteristics of our time: it has opened to us a mental outlook to which (speaking generally) the vision of all previous civilisations was closed. We may inquire by what excitement and process this change has come about?

It is reasonable to suppose that in those parts of the world where earthquakes, tornadoes, volcanic eruptions, plagues, and other violent and unexpected physical disturbances are of frequent occurrence, Nature would be regarded as arbitrary and capricious—in a word, disorderly. In such circumstances, the mind, feeling powerless to understand its physical environment, would naturally turn away from the serious consideration of purely physical facts, and would occupy itself with the contemplation and study of its own being: in which exercises the imagination and the moral faculties would be principally engaged. On the other hand, in tranquil climes where such physical disturbances are absent, or are present only rarely and on a small scale, the phenomena of the natural world would seem to be sufficiently stable and orderly to be calmly observed and classified. In such calmer conditions the direction of thought would be objective rather than subjective (for the tendency of mental activity is instinctively outward before it is inward), and in the absence of any active causes

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prejudicial to the sustained prosecution of such thought, knowledge of the phenomena of Nature would be acquired, and the laws governing them discovered, and the pursuit of such study would take the place of mental speculation. We find that this hypothesis (which has been advanced by Buckle and other writers to suggest the influence of environment upon evolution as a force determining intellectual direction) coincides with the facts; for, speaking generally, it is in the East and in some parts of southern Europe, where, because of the frequency of violent physical paroxysms such as we have indicated, the impression has been forced upon the mind that Nature is disorderly, that the natural sciences have been neglected; whilst the same cause has there favoured the culture of poetry, philosophy, and theological speculation. It would thus appear that this new view of life which excludes the agency of the supernatural (in the vulgar sense of that term) has been brought into our experience by the march of civilisation from the tropics to the temperate zones. And this geographical progress presents a feature which is characteristic of all evolution, for in each state of development in the gradual growth of our knowledge of natural laws, something of the old order is found in combination with something of the new. Thus, in the history of astrology, alchemy, and the healing art of the medicine man (all subjects slowly evolved from one form or another of the ancient so-called sciences of augury, magic, and sorcery [1]) are seen the gradual transitions from supernaturalism to naturalism, from superstition to knowledge, in whose course we must expect to find amongst the products of growth some unripe fruits, some half-truths, or truths still in the making. And if we regard superstition as "credence based upon insufficient evidence," then we may say that such changes represent the scientific development of faith—that is, of that kind of faith which is directly consequent upon intellectual judgments, since they show the constant tendency for that which is within the domain of knowledge, to absorb or digest, or else to reject or dispel that which is without. Of all sciences, that of medicine has been the most fettered by the spells of superstition, and the cause of this it is not, perhaps, difficult to perceive. We feel no intimate connection between astronomy or geology, chemistry or botany, and ourselves: we do not spontaneously associate their facts with our experience; they seem to have no special claims upon our personal attention; their relation to our peace of mind, if any, is not obvious; the average man, therefore, is content to leave the study of them to specialists. But the subject of medicine has

[1] It is interesting to note in this relation that it was enacted by 34 and 35 Henry VIII., Cap. VIII. "for the avoiding of sorceries, witchcrafts, and other inconveniences," that no person within the City of London, nor within seven miles of the same, should practise as physician or surgeon without being first examined, approved, and admitted by the Bishop of London.

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altogether a different influence. It is one about which every layman thinks he knows something: wherein he feels that he can make discoveries for himself whose value may be submitted to personal tests which are peculiarly convincing. Moreover, he is suspicious of methods that ignore his cherished nostrums, or thwart his fancies, and is prone to resent suggestions that magnify his grievances, as well as those that belittle them. Medical science has, therefore, the difficult task of mollifying this unfriendly spirit before it can be sure of enlarging its experience. For in medicine the mere knowledge of the expert of material facts is insufficient to effect the full design of this science, whose end is attained only when such knowledge is applied. In this application the science of medicine has a subjective as well as an objective bearing. Its truths to fructify must be applied to natures that are complex—to natures, that is to say, wherein not only have prepossessions to be combated, and individual idiosyncrasies to be counterpoised, but two special personal forces have to be encountered which may either powerfully increase their influence or rudely impair it. These forces acting and reacting upon one another are faith and imagination—twin forces whose value directly, or indirectly, as helpful allies in the treatment of many diseases is now universally admitted.[1] But prepossessions and unreasoning faith, and a disorderly imagination, are the mental conditions most favourable to superstition: hence we may conclude that the comparatively slow development of medical science may be largely explained by the presence at almost every stage of its practice of these obstructions to its growth. But such obstructions surely indicate that those who would minister to the body diseased should be not only physicians but psychologists: a fact which was perhaps perceived by the ancients, who united physician-craft and priest-craft in the same individual because both physic and religion are associated with psychology.[2]

The mental science, then, which is of special value in the practice of medicine, refers not to logic and ontology, but rather to the study of the emotions, appetites, desires, and sensuous perceptions, and also of the memory, whose phenomena we cannot doubt are in a special degree sympathetically associated with the nervous system.

Belief in supernatural interference in mundane affairs is, therefore, not necessarily due to the absence of mental culture, nor to the possession of special knowledge of supernatural agencies (for there can be

[1] "The physician must be able to make his patient believe in him, for without this faith his ministrations may be as nothing."—Dr. Ernest S. Reynolds at Manchester.

[2] "Among savages, their first physicians are a kind of conjurers, or wizards, who boast that they know what is past, and can foretell what is to come. Thus, superstition, in its earliest form, flowed from the solicitude of man to be delivered from present distress, not from his dread of evils awaiting him in a future life, and was originally ingrafted on medicine, not on religion."—Dr. E. Berdoe, *The Origin and Growth of the Healing Art*

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no systemised knowledge of arbitrary activities), but simply to ignorance of the laws of Nature. In modern civilisation, where the phenomena of Nature are sedulously studied, where the physical world appeals to the understanding rather than to the imagination, such belief can have no place in the general mind. If it be found at all, it can only be in those individuals who are ignorant of such study, or are insensitive to such appeal, and who therefore do not represent the general spirit of their age. On the other hand, in primitive communities and in ancient civilisations supernaturalism is everywhere conspicuous: in their theologies and philosophies, in their customs, traditions, literature, and laws. It would be interesting to follow the influence of this fact in these directions amongst different peoples at different periods of human progress; to trace the part it has played in ancient cosmogonies and cosmologies, in the arts of peace, and in the fortunes of war, in shaping human lives and institutions, and, perhaps, the destinies of nations; but such pursuit would carry us far beyond the scope of this essay. Here we must confine our attention to one particular branch of the subject, namely, to the supernaturalism which has been connected with the theory of disease. On the threshold of this limited inquiry we are struck with the universality of this superstition. Look where we may, we can find no part of the world where at one time or another it has not prevailed and flourished. What is no less remarkable is the uniformity of character it displays in all climes and under all conditions. We cannot, of course, argue from this universality and this uniformity of belief to the truth of the theory, as, for instance, Imlac argues in *Rasselas* with reference to apparitions. Dr. Johnson sought to establish from the universal belief in apparitions a very definite theory, namely, that the dead return; and it may be that he regarded such appearances as miraculous in the common sense of that term. But it would seem that he confounded evidence of facts with evidence of the theory advanced to cover them; for universality of belief in matters which appeal to the senses is only evidence of a common experience, and is of a different nature from the belief concerning their causes. There is nothing in the experience of an apparition as a bare fact, any more than of a mirage, that necessarily presupposes the suspension of natural laws: but the theory before us of the causes of disease takes supernatural intervention on the physical plane as a postulate.

A few examples taken from a mass of trustworthy evidence of this world-wide belief in supernatural causes of human ills will show the similarity of form in which the superstition has appeared amongst different races at different periods.

In Ellis's *Polynesian Researches* we read that in the Society and Sandwich Islands "every disease was supposed to be the effect of direct supernatural agency, and to be inflicted by the gods for some

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crime against the *tabu* [things sacred] of which the sufferers had been guilty, or in consequence of some offering made by an enemy to procure their destruction." Death, itself, even caused in warfare, was not regarded as an effect in a chain of natural causes, but was referred to the direct influence of the gods arbitrarily exerted. Again, poisonous substances were considered to be not harmful in themselves, but vehicles of divine vengeance. And what is true in this relation of these islands is true, with very slight modifications, of the whole of the Polynesian group. Concomitant with such superstition, wherever it may be, we find that the physicians of the people are also invariably their priests. Thus Hakluyt says in his account of Laudonnière's early description of the natives of Florida: "They have their priests, to whom they give great credit because they are great magicians, great soothsayers, and callers of devils. These priests serve them instead of phisitians, and chyrurgians." In the same sense, Halkett, in his *Historical Notes* speaks of the Indians of North America, and, quoting Doctor Morse, tells us that the smallpox which raged amongst the Hurons (whom he describes as both intelligent and modest, and much in advance of all the Indians whom he had visited) was ascribed by them to the diabolical sorceries of the Christians, and that this belief obtained as late as 1820—that is, two hundred years after Christianity had been first planted amongst them by the Jesuits. We read of the same form of superstition in Dr. Buchanan's *Journey through Mysore*. The author found in that country that every caste, "with the exception of the Brahmans, Mussulmans, and those who pretend to the rank of *Kohatri*," believed that bodily diseases were directly due to the wrath of evil deities.[1] Where a cure was possible, it could only be effected by the priest; and if medicaments were employed in the treatment of the sick, they were composed of leaves which were supposed not to have any inherent or natural healing power, but to derive whatever beneficial influence they might convey from the fact that they had been culled from trees consecrated to the divinity who was supposed to inflict the distemper. One would imagine that the discovery of the healing powers of certain leaves would be the cause, and not the effect, of the consecration to a divinity of the trees to which they belonged; and if such were so originally, it shows how completely the mind may be diverted from the natural aspect of a case to the supernatural; how the perception of moral values may become blurred. For these healing trees are consecrated not to benign powers, but to

[1] Mr. Hylton-Simpson's recent discoveries indicate that the art of trepanning was known to the ancients. This is borne out by the surgical instruments found in Isnia, which date from the first or second century A.D. But the operation of drilling the cranium as it is still practised amongst the savages of the South Sea Islands is not for the removal of diseased matter, but for the liberating of the evil spirit which is supposed to be in possession of the head of the patient.

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malign. For gods of health we look in vain in the beliefs of very primitive peoples, who, regarding medicaments as charms to ward off evil spirits, cannot have any conception of therapeutics as a system of knowledge as understood by us: but the divinities who are the authors of disease are everywhere in evidence. *Æsculapius*, *Machaon*, *Podalirus*, *Hygeia*, *Abbuto*, and the other healing powers of their kind, only make their appearance in the mythologies when the laws of Nature become objects of study.

The uniformity of the superstition we are considering is shown also in the means employed to avert the wrath of the powers of evil, as well as to appease it. These means are invariably sacrifices, of birds and beasts, of fishes and reptiles, and even in some cases—as with the dire goddess *Kali* of the Hindus, *Dabaiba* of the early people of Panama, *Huitzilopochtli* of the ancient Mexicans, and *Typhon* of the Egyptians—of human beings.[1]

These sacrifices are accompanied in every country where they obtain by fanatical rites wherein great stress is laid upon the actual pouring out of the blood of the victim, as if in some way the sick, for whom invocations are made, could only be saved by blood. Such is the leading idea, notwithstanding their different divinities, amongst the Benins and other West African tribes, amongst the negroes of Algeria, and the natives of South Africa; amongst them all their evil gods who make diseases are only to be propitiated by the shedding of blood. And it is noteworthy that the blood so shed is in some cases sprinkled over the fetish, in others over the priest who performs the sacrifice, and in others, again, over the sick and upon the lintels of their dwellings. There are places where under the influence of civilisation this idea of propitiation connected with the supernatural cause of disease has been lost, and yet the belief in the efficacy of this blood-shedding remains. When, for example, the Provençal peasant with a sick child loses his confidence in his family physician (a confidence easily shaken), he will buy a pigeon, and, summoning his family and friends to the sick bed, will in their presence kill the bird in such manner that its blood shall flow over the patient. That these ignorant people are guided in this practice by any special knowledge of natural therapeutic agents cannot be supposed, and we must conclude that this custom is a relic of the superstition that diseases are arbitrarily caused by supernatural evil beings whose temper can only be assuaged by the outpouring of blood.[2]

[1] Human sacrifices held an important place in the religion of the Mexicans. Cortez and his companions are said to have found in 1519 thirty-six thousand human skulls in the temple of their national god Huitzilopochtli.

[2] One is almost inclined to class with this relic the barbarous practice of "blood-letting" so rife but a generation or so ago, of which the brass cups over the shop of the barber, and his gay pole with its stripes of blue, red, and white (to signify veins, blood, and bandages) are the only signs that now remain.

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We may say in passing that, although the pigeon is probably employed by the poor in the rite we have mentioned because of its comparative cheapness, in the old forms of divination it was held in special favour, and, indeed, is so regarded at the present day in Egypt, Syria, Arabia, and in the East generally. It is to the Muslim what the fowl was to the Greeks and Romans, who bred and protected that bird for the practice of augury and divination.[1]

Examples of these forms of supernaturalism might be indefinitely multipled. Wherever obtains the belief that diseases are cured by direct and arbitrary supernatural agency, there also is found the belief in evil supernatural powers who produce them. These are but different aspects of the same superstition. Their identity lies in the fact that both ignore the laws of Nature. Wherever the belief obtained that trees, mountains, and water possessed souls that became sylvan deities, sprites, and nymphs who cast a net of enchantment about the course of human lives; wherever it was held as a tenet of religious faith that every branch and object of Nature, including the vital organs of the human body, had its own particular presiding divinity who was to be persuaded by invocations and propitiated by sacrifices, there could be no confidence in the stability of natural laws, no intelligent appreciation, even, of their meaning, and, consequently, the conditions essential for their study would be wanting. And this attitude of mind is reflected in all mythologies. It has occasioned polytheism; it has been adjusted to monotheism; in part it was the forerunner of the pantheism of the Greeks; and it may be the primitive form of the conception of Divine Immanence.

The real hold which this supernaturalism had upon the people of the old civilisations is shown by the tenacity with which the early converts to Christianity, who had renounced their mythologies, clung to many of the superstitions which were based upon them. On the authority of St. Chrysostom we learn that at Antioch (the place where it is supposed the title of Christian was first used) it was believed by the disciples of the new faith that coins bearing the effigy of Alexander the Great [2] had the power of averting disease, and on this ground they bound them about their feet and heads.

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[1] See Leviticus xii. 8 and xiv. 49.

The early Christian Church regarded the dove as the symbol of the Holy Ghost, and instances are recorded (by Eusebius and others) of candidates for sacred offices having been elected thereto because doves had been observed to settle upon their heads. In this way Severus and Euortius were chosen for the sees, respectively, of Ravenna and Orleans. The dove was held in high estimation by the Semitic nations. According to Lucian, it was worshipped by the Assyrians and Samaritans. The Red Indians and Mandans of North America, the New Zealanders, and South Sea Islanders—all have legends concerning this bird which suggest the Mosaic narrative of the Flood.

[2] Alexander the Great was declared by the Egyptian priests of the god Amun (Ammon) to be the son of Jupiter.

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Again, Bingham, in his *Antiquities of the Christian Church*, tells us that Constantine suffered "the heathen in the beginning of his Reformation for some time, not only to consult their augurs in public, but also to use charms by way of remedy for bodily distempers," and further, "that many Christians adhered to these practices. Their charms and amulets were called *periammata* and *phylacteria*, and they were supposed to drive away many diseases, and preserve the wearers from dangers." The Church at the Council of Laodicea raised its voice against these practices, and Chrysostom, Basil, and Epiphanius told the Christians that, although such methods actually effected cures, still, "it would be better to die than to go to the enemies of Christ and be cured after that manner." Indeed, death was to be recommended under such circumstances as it would be a kind of martyrdom. And from these facts Bingham rightly concluded that "this piece of superstition of trying to cure diseases without physic was deeply rooted in the hearts of many Christians." So powerful was the effect of their mythology upon the Greeks that even Plato did not always deem it prudent to criticise their tenets too closely. He could find no grounds for the popular belief in the dogma that gods were generated from the union of Uranus and Gaea, but he abstained from affirming his own judgment on the matter, and shirked the responsibility of deciding the merits of so obscure and difficult a subject by referring the question to the evidence of those who declared themselves to be the actual offspring of those divinities, on the ground that such witnesses must of course know their own family affairs! M. Martin, in his *Etude sur le Timée* supposes that Plato was in this instance speaking ironically; but whether this be so or not, the fact remains that he was unwilling to disturb a deeply-rooted superstition which dated back at least to Hesiod, namely, the belief that these divinities who were worshipped throughout Greece presided over cities and families, intervened in the public and private affairs of mortals, and healed their diseases. What is true of the enduring influence of the supernaturalism of the Greek and Roman mythologies is true also of the Egyptian. It clung to the Christians of the ancient Coptic Church, whose religious system has been described as "a heterogeneous mass of false doctrine, idolatrous rites, and superstitious ceremonies," and it is reflected in its off-shoot, the Christian Church of Abyssinia, whose adherents, we are told by missionaries, are so ignorant of what is meant by law in the realm of Nature that they believe that all diseases may be averted or cured by the dust from the graves of their saints.

As in the East, this ignorance is displayed in the popular faiths of the North. So tenacious were the Finns of their ancient mythology that for four hundred years they blended its superstitions with their Christianity. This may, perhaps, be in some measure accounted for by the fact that they were converted to Christianity, by the fanatical

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papist monarch Eric the Ninth of Sweden, at the point of the sword, but the principal cause of their tardy acceptance of the new doctrines in their entirety was probably owing to the difficulty experienced by the missionaries in persuading them that one form of supernaturalism was nearer to the truth than another. If the Christian Trinity were true, why not their own *Jumala?* If they were to worship Mary, "the Mother of God," why not their own *Mielikki?* If they were to believe in Satan, why not in their own *Hiisi?* Were not their own bloody sacrifices atonement by blood? [1]

In the Finnish mythology, as elsewhere, various divinities, good and evil, are supposed to exercise over the different phenomena of Nature an arbitrary and independent sway, and amongst them is a special evil spirit who is the author of all disease; and such is the character also of the early religious faiths of the Norwegians and Lapps. Thus from these, as from the other beliefs we have briefly noticed, is excluded any conception of fixed order in the physical universe, and, therefore, of a causal relation between natural phenomena.

Now it may here appear that if the radical characteristic of human development is the presence of knowledge of the laws of Nature, and of confidence in their immutability, and if superstition be the inevitable outcome of the absence of such knowledge and confidence, then the system which professes to cure or alleviate bodily disease by faith must be condemned as retrograde. This conclusion would be inevitable if the faith-healer interpreted the term *supernatural* in the vulgar sense, wherein is implied the suspension of, or arbitrary interference with, the laws of Nature by direct Divine Action. But if we rightly interpret their view, adherents of the theory of mental healing take a different standpoint. To those who believe that physical health may be maintained, [2] and many diseases alleviated or cured by mental action, the phenomena attending the different subjective modes or exercises employed in "faith" treatment are natural in the true sense, in that they are orderly, or governed by laws; and the relation between subjective conditions and their objective effects is a natural one, as that between thought and molecular action—between volition and bodily movements—is natural. And further, all phenomena are natural, the supersensuous no less than the physical, the unseen no less than the seen.

This conception of Nature includes all experience, subjective and

[1] See Leviticus xvii. 11.

[2] Dr. Cooke, writing in the *Arena*, says that after many years' study of mental therapeutics he is satisfied that their greatest value is in the department of preventive medicine: "I believe that more diseases could be prevented by studying the minds and souls of youth, and by correcting abnormal tendencies in them, than be cured in later life by any amount of treatment, no matter of what kind."

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objective, all divine means which are associated with every manifestation of life, of thought, and of feeling; and if with this all-embracing meaning of Nature the term supernatural may be preserved, it can only be to distinguish the phenomena of the spiritual life from those of the physical. It is because any proposition standing upon a base such as this claims justly the attention of the scientific mind that we have here dwelt upon the matter somewhat at length. Because of this foundation the student may feel assured that his investigations, whithersoever they may lead, will not entrap him in a maze of contradictions, nor plunge him from the firm earth into the void. At the same time, he must not limit his conception of science (as the physicist of the present day, when the different branches of physical science are highly specialised, is too prone to do) to the knowledge of physical nature alone, but must extend it to include knowledge of mental and spiritual facts as well as physical.

We understand, then, that by "faith-healing" something more is meant than the curative power of mere belief or trust in some mysterious unseen agency. It implies a spiritual attitude which may be productive of a curative agent, or friendly to the operation of such. In this light it resembles in a measure the belief which a self-confident man has in his own powers. The mere belief does not direct his aim, nor fashion his ends, but it supplies a constant propelling energy which sustains his efforts to their crowning point. But it means more than this. The mind in the attitude which we have here called *faith*, in contemplating life and the world, is conscious of a complete trust in the rightness and fitness of things; it has nothing in common with the mere dreamer; its optimism is an enthusiasm; it feels that man is a divinely appointed instrument in the work of transmuting all that jars the ear, offends the eye, and wounds the sensibilities, into music beauty, and joy. It discerns in Nature her tireless striving to make whole—that is *holy*, to sanctify mind and body—which is to bless with health, and thus to establish a perfect adjustment of spiritual and physical relations.[1]

This leaning and tone and movement of the intellect and affections brings us into *rapport* with all those beneficent influences that are near at hand and ever ready to flow into and gladden our whole being. The healing agent which faith such as this enforces and informs is "nerve energy," the "vital fluid," the force which urges every function, and animates every particle of the human organism. It may as appropriately be called the life agent as the healing; for disease is not some positive *thing* in the body that has to be driven out of it, but some hindrance to the normal flow of the vital force whose office is to

[1] "The old word for 'holy' in the Teutonic language, '*heilig*,' also means 'healthy.'"—Thomas Carlyle, Inaugural Address at Edinburgh.

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energise the vital organs so that they may vigorously perform their functions, to repair waste, and to carry off useless residues. It is the maldistribution and discharge of vital energy that constitute distemper. [1]

There may be poison in the system whose presence in some causal relation synchronises with this condition, and it is the part of the healer to drive it out; but the poison is not the disease. The question therefore arises, What can be done by the *mind* of the patient—by the master of the brain and nerves of the patient, and therefore of the centres wherein the vital force of the body is elaborated, whence it is propelled, and its flow ordered—to employ this agent to re-establish the normal conditions of health? The forces which in different forms and degrees go to set up and maintain these conditions are everywhere ready to express themselves. They flow into us from our material surroundings, and we call their action chemical, electrical, magnetic; they flow into us from our animate surroundings and we call them animal spirits, odic emanations, personal magnetism; they flow into us from the soul-life about us, and we call them moral influences, hope, courage, sympathy, and love. In a word, the recuperative and curative powers resident in and native to each one of us may be reinforced and invigorated by these vitalising streams through *faith*—that spiritual attitude which prepares within us a sensitiveness to receive, and an alertness to appropriate every health-giving influence within our sphere for beneficent service in the laboratories of body and mind.[2]

But we must here inquire what are the grounds of the belief that special mental states or exercises may affect the physical organs and their functions? Briefly stated, this belief rests upon the natural *nexus* between mind and body, and upon the voluntary character of many of the phenomena which depend upon this relationship. Thus, volition, which is a mental act, can produce a large number of bodily movements; in other words, the vital force in the body can be transmitted at will in many directions and produce visible effects. But between such effects and the initial volition, energy must pass through a multitude of invisible channels, and produce hidden effects.[3]

[1] According to an old and widely-accepted theory of medicine, now abandoned, there were held to be four principal moistures or humours in the body on which depended physical and mental fitness. When these were well mixed or *tempered* they were productive of good bodily health, conjoined with a kindly frame of mind; and when ill-tempered, the reverse. Hence the original use of the words "good-tempered," "good-humoured," and "distemper"—that is badly-mingled humours making for diseases and evil moods.

[2] That this receptiveness is not always present is shown by the fact that, the actual physical effects of substances administered to the sick vary often in a remarkable degree with the individual temperaments of the patients, and not infrequently are determined by their imagination and prejudices.

[3] For the influence of volition upon the human *aura*—its quality, development and colour—see *The Human Atmosphere*, by Walter J. Kilner, M.B. (Cantab), M.R.C.P., etc. (1911).

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There is an analogy between such action and those phenomena of memory which show that the links missing in a chain of associated ideas (the ideas, that is to say, which are concealed in the subliminal self) must be actually energised, since the effects which are produced in consciousness can only be explained by such excitement.[1]

So we may infer that what are called the involuntary organs and parts of the body may be actually influenced by the Will, though not consciously in the same degree as the voluntary. We may not be able to demonstrate that volition has a direct power over the heart, but as there is a harmonious relation between the movements of the heart and the movements of the lungs, volition may influence cardiac action through the respiratory system, which may be controlled to a considerable extent by the Will.[2]

Thus, if we run or otherwise violently exert ourselves, we increase the action of the heart because we accelerate respiration; but the same effect would ensue if we were to sit down, and by an act of volition breathe very quickly. Similarly, the action of the heart may be reduced by a course of very slow breathing, and weak or intermittent action be strengthened or corrected by long and deep breathing. It may be thrown into dire disorder by fear and disappointment, or greatly energised by sudden joy. The importance of these homely facts is realised when we consider that whenever any organ is affected the heart is probably affected at the same time. This sympathy is certainly often observed with reference to the lungs, the stomach, the kidneys, the liver, and the brain. The intimate relation between mental and physical states is further illustrated by the effect of the emotions upon the blood-vessels, as in blushing from the feelings of embarrassment or shame; by the qualities courage and determination which convey energy to the nerves and muscles; and, generally, by those numerous dispositions and inclinations of the mind—such as grief, anger, anxiety, hope, contentment and their opposites, which express themselves in the lineaments and gestures of the body. Examples of these are familiar to all, but especially may be noted the

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[1] This explanation is affirmed by all philosophers, although they are divided as to the question whether these hidden ideas actually come into consciousness: Dugald Stewart, on the one hand, holding that they do rise into consciousness, but are instantly forgotten: Leibnitz, on the other, that they are themselves too feeble to so rise, but not too feeble to excite into consciousness other ideas less obscure. To Leibnitz was due the first exhaustive exposition of the theory of mental latency. For Sir William Hamilton's grounds for agreeing with him and with the whole of the continental schools on this matter, see his *Lectures on Metaphysics*, No. 32.

[2] In Swedenborg's terms, "the respiration of the lungs is in perfect conjunction with the heart." In his system "the heart corresponds to the Will," not to the faculty of volition, but to the affections of the Will as signified in the common expressions "hard hearted," "good hearted," etc. What therefore disturbs the affections disturbs the heart.

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physical effects of humour, whose counterpart is laughter, for, when this emotion is very strong, not only are movements of the face thereby produced, but the diaphragm and spleen are affected, and, indeed, the energy so excited would seem to overflow and stir every part of the bodily organism, and thus justify the common description of the intensely humorous as "side-splitting." And as the mind acts upon the body, so conversely the body acts upon the mind. Material objects (including, of course, the parts of the physical structure), through the organs of sense, induce the formation of mental images or ideas, and bodily disturbances and obstructions disorder the imagination and warp the judgment—as in dreams; and if Dr. Moncure Conway enunciated a scientific truth when he attributed Calvin's theology to Calvin's liver troubles, then, also, in the waking state! So it may be that in anæmia the poor sufferer with pulseless soul needs bright companionship and stirring music no less than bright sunshine, pure air, and iron phosphates.[1] It may be that in the future the physician who is consulted in certain cases of liver complaint will prescribe frequent doses of humorous literature, and in others will feel it incumbent upon him to recommend, with or without his drugs, a course (say) of Dr. Robert Collyer's Sermons, and to warn his patient that if any pessimism or anxious solicitude for the safety of his miserable soul lurk in his mind, he will gain no permanent relief from his bodily ills unless he first uproots such rank growths, and firmly plants in their place the benign seeds of true altruism and eternal hope.[2]

These particulars, lightly sketched though they be, afford no room for doubt that through the actual link (whatever may be its nature) between mind and body influence flows from each to each, and that such influence establishes a causal relation between body and mind. To the degrees and possibilities of the action and re-action of these influences it would be rash to assign exact limits in the present state of our knowledge concerning this subject. Its nature is in a large measure occult, for the student of mental power as a health-restoring agent can only examine the principles and processes involved in the practice of mental therapeutics at second hand. In his own person he can only study the phenomena when they have already passed—that is to say, the phenomena as he recollects them: for to be able to place reliance upon his judgment he must at the moment of his examination

[1] "In France I know personally of one institution for the insane (and there are others, I believe, of a similar character) where curative music is employed scientifically and with undeniable success. . . . I am looking forward to the day when the musical mechanism and the psychological mechanism will be brought into direct contact, providing what Schopenhauer called 'the music of deliverance'—deliverance from physical and mental ailments."—Mr. Albert Visetti, Professor of Music, Royal College of Music, etc.

[2] "I have seen many a woman and a few men, who had been children of disease all their lives, made strong, either by adversity or by a noble purpose entering their hitherto useless existence."—Dr. Cooke in the *Arena*.

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be himself in health. His case, however, is so far no different from that of the psychologist who cannot analyse his own passions and other passing mental modes which overcast his critical faculty; or of the physician who is no better able to study a distemper—especially a nervous disorder—because he chances to suffer from it himself. But we may say that the evidence furnished by the schools of Nancy and of the Salpêtrière, by the researches of Drs. van Renterghem and van Eeden of Amsterdam, of Drs. Esdaile, Braid, Milne Bramwell, Woods and Dill, of Messrs. Gurney and Myers, and many other trained observers in this country and abroad, affords abundant evidence of the influence of suggestion and auto-suggestion, and of faith, hope, and enthusiasm, and other kindred emotional states upon physical and mental modifications; and this testimony is in no important particular weakened by the fact that the authorities who furnish it are not always in agreement as to the theory of the phenomena, nor as to the methods of exciting them.[1]

One aspect of the theory of suggestion which to-day takes the place of the speculations of Mesmer amongst the leading investigators of psycho-therapeutics raises the question why is the force of suggestion so much more powerful in *hypnosis* than in the normal state?[2] A suggestion made to a person in the hypnotic sleep will, it is almost certain, be carried out by him upon his return to the waking life, but there is not the same degree of certitude in the case of suggestion made in the normal state. The answer to this is found perhaps in the fact that the ideas of which a subject when hypnotised is conscious are not present to him when he returns to his normal condition, but lie back in the stores of his latent mind. When these ideas of the subliminal self rush forward for the first time into the normal consciousness—their history being forgotten—they come with the force of intuitions, inspirations or presentiments, and, the imagination investing them with mystery, gives them a kind of artificial vigour and momentum. Some such quality may be acquired by suggestion by dreams, or prompted during natural sleep, but for suggestion in the normal state to have the force and precision of that in *hypnosis*, it must be stimulated by some special excitement. This is afforded in a supreme degree (as all experience goes to show) by an access of religious feeling—as when the suggestion was made to Jeanne d'Arc that she would save her country—and many similar examples are afforded by the witness of Lourdes, and other shrines, which are believed by the sick who resort to them to be invested at once with healing power and religious sanction. Professor J. R. Angell says in this relation:

[1] See Dr. Hack Tuke, *Influence of the Mind upon the Body*.

[2] It would seem in the light of Dr. W. J. Kilner's researches that the "fluid" theory of Mesmer, which scientific men repudiate, may have to be reconsidered. It is only fair to Dr. Kilner himself to say that he expresses no definite opinion on the matter. (See *The Human Atmosphere*.)

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"It must be clear that if we make any approach to restoration from diseased conditions by mental means, we shall be the more successful the more powerfully we can appeal to the mind and the emotions. Now among all the feelings to which we can appeal, few, if any, are so strong as those which we call religious. From the hygienic side, therefore, there is a tremendous advantage to be gained from the religious appeal wherever it can be used."[1]

In the alliance of the Will with the emotions associated with religious enthusiasm—emotions which stir and sway the whole mind—lies the full potency of suggestion, and of every mental influence which may be pressed into the service of the healing art. But for this union (which makes possible the influx into man of forces that heal and bless from the fund of health energy ever abounding in Nature) to be wholly beneficent, the channels through which such influences flow must be rational and pure; for superstition in beliefs, and selfishness in affections, bring bitterness and corruption as surely as "hemlock turns sunshine to poison, and the wasp-honey to venom."

[1] J. R. Angell, Professor of the University of Chicago *Psychotherapy.*

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ON THE RIM OF THE WORLD

By J. Paterson-Smyth, Litt.D., D.C.L.,
Author of *The Gospel of the Hereafter*, etc.

I

I AM thinking of modern "Spiritism" and of that older, higher "Spiritualism" which Christianity teaches each in its own degree tending to widen our horizon.

We are a strange, dull people, we humans. An unthinking crowd at the gate of unutterable mysteries. There are wondrous things ahead, but the people do not know it. There is no death, but the people do not believe it. Human life is the most exciting romantic adventure in the Universe, going on stage after stage till we are older than Methuselah, and then on again through the infinite eternities—and yet men pass into the Unseen as stupidly as the caterpillar on the cabbage-leaf, without curiosity or joy or wonder or excitement at the boundless career ahead.

Instead of the thrill of coming adventure we have the dull, grey monotony of aged lives drawing near the close, and the horror of the Great War is doubled and the torture of wife or mother as the beloved one crosses the barrier.

What is the matter with us—Christian people? Do we not know? Or have we lost our beliefs? Or has imagination grown dulled by too frequent repetition of God's good news?

§

It was so different in early days, when the world was younger, when Christ's revelation was fresh. Look at St. John, four-score years and ten, like an eager boy looking out into the Great Adventure: "Beloved, now are we the sons of God, and IT DOTH NOT YET APPEAR WHAT WE SHALL BE."

What we shall be! What we shall be! Is not that the chief delight of being young? Guessing and hoping and wondering what we shall be?

The dreariest thing in life is dulness—monotony. The brightest thing in life is outlook—vision. And God has given us that. Like St. John, we too can stand on the rim of the world and look out over the wall.

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§

Life is full of latent possibilities—of outlook, of romance, of exciting futures. God has made it so, if we could only see it. God's world of nature has its continuous progress, its ever new and fascinating stages. God's caterpillars in their next stage are going to be soaring butterflies —God's acorns are to become mighty oaks—God's dry little seeds in the granary to-day will in autumn be alive in the waving harvests. God's world of nature is full of romantic possibilities, and God's world of men is infinitely more so, and one of life's delights is to know it and look forward to it, guessing what we shall be. Outlook. Vision. That is what gives zest to life. That is what we need to make life bright and beautiful.

§

I see a group of small boys sitting at their play, and their eyes are bright, looking into the future. They are going to be soldiers, and sailors, and circus-riders, and travellers, and all sorts of things. Because they are boys with the enthusiasms of boyhood, they may be anything. All the possibilities of boyhood belong to them. It doth not yet appear what they shall be, but it is delightful to look forward and speculate about it.

I see them again a dozen years later. They are starting in life, just left college, young soldiers and lawyers and curates and business men—still with their visions and dreams of the future. It doth not yet appear what they shall be, but because they are young men, all that belongs to young manhood lies before them, as they look forward in their day-dreams. What countries they shall live in and what girl they shall marry, and what positions and what work, and what excitements, and what pleasure lie before them. Ah, it is delightful to be young, realising the possibilities in front—dreaming of what we shall be.

I see a crowd of older people, men and women, dull, uninterested. "We are no longer young," they say, "we are middle-aged or elderly. And we have ceased looking forward. We have lost the vision. We have not become as great as we expected, or as good as we expected. We are fairly comfortable. We have not much to complain of. But life is a bit dull. The path is a bit monotonous now. We have traversed most of it. We can see to the end there are no more romantic possibilities to make life exciting, no more visions of 'what we shall be.'"

§

Don't believe it! Not a word of it. The visions are there all right. Look out over the wall. This life of yours is only one of the

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stages in your career, and not the first stage, either. The first came to you, silent, unconscious, "where the bones do grow in the womb of her that is with child." There you grew and developed for the next move forward. One day came the crisis of birth, and you passed into the second stage, the training stage for life and for God. Then through a new crisis you pass on again to new adventures. For God has revealed that what you call death, the end of this career, is but birth into a new and more wondrous career which again passes you forward into still nobler adventures, and that again perhaps—who knows? Who shall fix the limit?

§

Nay, you are not elderly. You are not middle-aged. These are but comparative terms. A house-fly is elderly in twenty-four hours. An oak-tree is young after a hundred years. And you, children of eternity, with ages before you—you are not even one-year-old babies in the light of your great future.

So you see why the old apostle of Ephesus did not feel aged or elderly, why he looked out like an eager boy into the adventure before him. "Beloved, now are we the sons of God, but we don't know yet what we shall be." Aye, we don't know yet. No more than did the small boys laughing in their play and going to be soldiers and sailors and wonderful people. We don't know yet. But it is all before us. And it is all going to be good because it is in the Father's presence.

So I bid my readers do what I sometimes do myself, look out into the void and guess like the children what you shall be when you are older than Methuselah.

Shake off the dulness and monotony from your life. Don't talk as if old or middle-aged any more. Be children again in the presence of the Father, and with happy child-hearts keep guessing what you shall be.

II

Two groups stand to-day on the rim of the world looking out over the wall. First look at Spiritualism (I do not like its name. It ought to be called "Spiritism." The word "spiritual" has with most of us a higher connotation). Spiritism is an attempt—a crude, faulty, but fascinating attempt—to peer into the Hereafter. The purpose of this paper is not to condemn Spiritism, but to place it in its lower subordinate position and to set opposite to it that higher "Spiritualism" which Christianity reveals and which ought to be known and is not known as it should be by the people of a Christian land.

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I am not at all out of sympathy with Spiritism. It has grave faults and grave dangers, but it should get credit for what good there is in it. It is at least "on the side of the angels" in its protest against Materialism—the most dangerous enemy of religion—and in whatever help it has given to belief in the reality of survival after death. To men in the agony of bereavement who have lost faith in God and the Hereafter it may often be a stepping-stone back to religion.

For I believe that in spite of often-proved fraud and trickery it is by no means all fraud and trickery—that the suggested hypotheses of telepathy and hypnotism cannot explain all the phenomena, that there is reality behind it, that voices do come across the void. Often puzzling, conflicting, disappointing voices. It is as when one sits in his little amateur wireless station listening for wandering flashes from the ships at sea. Now and then he hears cross-currents crackling through the air from amateurs like himself. There are many of them "listening in," and some of them he suspects sending spurious messages. Sometimes he gets a message clear and distinct, but whether from the sea or land he cannot certainly know. But he knows there is something there.

Let us keep an open mind. There are more things in heaven and earth than are dreamed of in our philosophy. The subject deserves more serious scientific investigation than it has received. For science, as Lord Kelvin said, is bound to face fearlessly every problem that can fairly be presented to it. The Psychical Societies spread themselves over too large an area. We need long, patient study concentrated on this field, to judge if it can be explained away as fraud or delusion and to judge, if it be real, what possibilities are in it. We need little bands of men scientifically trained in weighing evidence, not prejudiced or indifferent, not credulous or incredulous—men of honest open mind, and especially religious men in the broadest sense of the word who would face the inquiry earnestly and solemnly in the name of the God of Truth.

III

The chief objection to Spiritism in the minds of thoughtful, religious people is that it lives on a low plane. It tends to lower our thoughts of the great solemn World of the Dead. It is a common remark that the bulk of what profess to be communications from the Other Side are petty and trivial. No doubt these trivial things may be the most convincing proofs for identification. But it does not seem able to go any higher. With all desire to be fair, I must candidly say that after some most interesting experiences and very full study of its literature, and although I have found some fine ethical statements, I have seldom, if ever, come on anything tending to deep spirituality of life or longing

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for a closer fellowship with the Divine. If Spiritism can only suggest a world beyond, no higher than this poor world, it is likely to degrade our whole thought of the life hereafter.

§

It need not do this. If it would be wise and humble and docile and reverent—if it would realise its position as a mere tyro just beginning to grope at the fringe of the Unseen. Up to this, at any rate, it has only come to the earth border, lifting a little corner of the curtain enough to see that there are live people beyond, people with memory and affection and interest in the lives left behind them on earth. If its results be recognised as unquestionable it will certainly prove survival after death. And that is a very great gain. We are so constituted that no teaching, even of the Bible itself, can be so impressive and convincing as one single undoubted experience of "the touch of a vanished hand." But mere survival after death is a very poor thing compared to the splendid Immortality and Upward Progress and Fellowship with God which the Christian revelation bids us look forward to and which the best of the votaries of Spiritism do look forward to. It is still on the edge of the Unexplored Country. It has not got into touch with the great saintly souls to whom has been revealed much of the mysteries of God.

§

I plead only for modesty and diffidence on the part of Spiritism. It should recognise that it has not got beyond the rudiments of knowledge. Maybe it will some day. Maybe it will not. For it has serious limitations. The most thoughtful of its students, men like Sir William Barrett, believe that it can only reach those on the earth border, the souls as yet undeveloped of men who have recently died. And worse than that: if these were all good, earnest souls, they would be good company, at any rate. But many are earthy and frivolous—some may be even bad people. And if like attracts like, the frivolous type that often go to séances irreverently, as to a show, are likely to draw around them spirits like themselves. Add to this that many of the communications are confessedly vitiated by the personal element in the medium, either in trance or automatic writing. With all these limitations it surely becomes Spiritism to be humble and modest, and not set itself up as a new religion or a new revelation. If it would keep in touch with the Christian teaching about the Unseen each might perhaps help to explain and elucidate the other. If it set up as an exponent of life in the Unseen the results must be disastrous.

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IV

Now look at the other group, the men with the Christian revelation in their hands, looking out over the wall.

The Christian Church should not be hostile or unsympathetic toward Spiritism. Whilst clearly warning its people as to its limitations and dangers, it has no business to be unsympathetic toward any honest seekers after truth, even if it regard them as mistaken. And above all, it must teach in these days more clearly and prominently what it has learned from its Lord as to that life in the Other World. He came from that other world. He passed in from the Cross into the world of the departed and came back to His friends on the Easter morning. His whole earthly life was in contact with the spirit world, from the spirits which sung the Christmas Anthem at His birth down to "the young men in white apparel," the spirit visitants at the Resurrection and Ascension. He ought to know. Even to men who do not believe that Jesus of Nazareth was divine, His close touch with spirit life should surely appeal. Well-instructed Christians, however much they may sympathise with it, should have no real need of "Spiritism" at all.

§

Christian teaching desires me first to concentrate on myself, on that mysterious spirit being which I call "I."

"I" am not my body. That is but my instrument, my outward garment woven by me out of certain chemical substances. It is continually changing its substance, like the rainbow in the sky, like the eddy round a stone in the river. Every thinking man knows that the "I," the real self, stands behind the body looking out through the windows of its eyes, receiving messages through the portals of the ears. It rules the body, possesses the body. It says: "I have a body. This body is a thing belonging to me."

"I" am not the brain. The brain is always changing its substance. The brain is but my instrument. If we compare it to a violin, then I am the unseen player behind. The musician cannot produce music without his violin, but the violin cannot do anything without the musician behind it. The brain of a baboon differs little from the brain of a man. "So far as I can see," writes a prominent scientist, "if the soul of a man could get behind the brain of an ape he could probably use it nearly as well as his own." To say, then, that the brain is the *seat* of thought is by no means to say that it is the *source* of thought. Look at a human brain on a dissecting-table—a mass of cells and nerve centres suffused with blood—and as you think of the

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glorious poems and noble thoughts and mighty intellectual efforts you must perforce smile at the thought that that poor bleeding thing produced them. I use the brain. It is mine. It is not "I."

"I" am not the mere train of thoughts and feelings and emotions. I am behind them all. *Cogito, ergo sum.* They are always changing; I remain the same. Not a particle remains of the brain or nerves or eyes or hands or feet with which I did a good or evil deed twenty years ago, but it is impossible for me to doubt that it was "I" who did it, that I deserve to-day the praise or blame due to it.

§

Next we are taught to grip with both hands the fact that this life as we know it is but one single stage in God's plan for us, the kindergarten stage, the caterpillar stage of our existence. That in five thousand years the spiritual being looking out from behind the mask of your face to-day will be living and feeling and thinking still. That what you call death—the end of this career—is but birth into a new and more exciting career stretching away into the far future, age after age, æon after æon, whose prospects should stir the very blood within us. There is nothing which so touches some of us as a thing with "makings" in it, a thing with untold potentialities in it, a thing which may come in the future to God only knows what. Talk of the caterpillar which is to develop into a butterfly, or the acorn which shall one day be a mighty oak! Why, these miracles are but child's play compared with the miracles potentially wrapped up in this poor little self. No wildest fairy-tale can suggest the wonder of its possibilities as it passes out into the new adventure of the life beyond.

We are taught that life goes on in successive stages upward on its splendid eternal march. The first stage is silent unconscious, "where the bones do grow in the womb of her that is with child." Then comes the crisis of birth launching me out on this second stage, my kindergarten schooling-time for bigger things to come. Then comes the next crisis which we call death, which God says is birth into a larger life, where the real romance of life begins. Death is no executioner to cut off our departed one from life and love, but rather God's good angel bringing him more than life has ever brought, and leading him by a path as full of miracles of soft arrangement as his birth to heights of ever advancing existence. As the baby's eyes opened from the darkness of the womb to sunlight on this world, so do the eyes that have closed in the darkness of death open on "a light that never was on sea or land."

The Bible thus teaches to every careful student that there is this next stage of life beyond the grave. And that further stages are in front—God only knows how many—till we come to the final Heaven

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which God designs, "till we come to the stature of the perfect Man, even to the stature of the fulness of Christ."

Surely this would seem a good foundation for Spiritism to start from. Even to a non-believer it is at least a plausible hypothesis to be tested.

§

At Death we come right into the province of Spiritism. "I" has gone on his mysterious journey into the strange new land. We are standing in the darkened death-chamber where his body lies with close-shut eyes, like an empty house whence the tenant has gone out, closing the windows after him, and sobbing friends are feeling the inevitable pressure of the questions, Where has he gone? What is he doing? Is it a life of unconscious sleep, or is he alive and conscious as he was yesterday? Is there further probation there? Is there growth and progress? Does he still love? Does he still remember? Can he help us? Can we help him? Are we to think of him as one gone absolutely into the Unknown, or may we think of him as of our other absent one who went to India last year, only with the difference that one writes home and the other does not?

§

There is no room here to distinguish between a faithful servant of God and one who has rejected or missed God on earth. To avoid confusion we assume here that the departed one has died a humble, penitent Christian. What has the Christian revelation to tell about him?

See what hints we can gather from our Lord Himself. First watch Him lift the curtain a little in His story of Dives and Lazarus. He is thinking of man's condition immediately after death. It is not intended as a revelation of that other life, but it has incidentally to lift the curtain a little in following the fate of a selfish man who ignored God's law of Brotherhood. So we get a momentary glimpse of the Unseen Life existing to-day side by side with our earth-life. For you see the men depicted in Christ's cartoon of "Unbrotherliness" are not long dead; Dives' brothers are still living here; Dives is quite conscious that the ordinary life of men is still going on on earth. We notice that the life there in its inmost experience seems very much like this life and follows from it quite naturally. It is a clear, conscious life. They are represented as thinking and speaking and feeling. Lazarus is feeling comforted. Dives is feeling tormented in conscience and thinking anxiously of his brothers' danger on earth. So keenly alive are they all to him that he wants someone to go back to tell his

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brothers. We see that each feels himself the same "I" that he was on earth. Lazarus feels himself the same Lazarus, Dives the same Dives, the brother of those five boys. I shall still keep on saying "I." I am not somebody else over there. And there is no break in memory. The old life is clearly remembered. Lazarus remembers Dives, Dives remembers Lazarus. That is assumed as a matter of course. "My son, remember that thou in thy lifetime," etc. We find, too, the expression that Lazarus was carried by angels or messengers from that land, suggesting that the poor soul does not go out solitary into a great lone land. There seems a suggestion, too, that Dives was the better for the discipline of that land. The man who in this cartoon of Jesus represents selfishness on earth is now troubling about his five brothers.

§

We get another hint in the story of the Transfiguration, when Moses and Elijah come out from that after-life to meet the Lord and "speak with Him of His decease which He should accomplish at Jerusalem." Does it not suggest at once the deep interest which they and their comrades, the great souls within the Veil, were taking in the great scheme of Redemption on earth? Does it not suggest their interest in our doings here?

The next hint comes when the Lord is dying on the Cross. The penitent thief is hanging beside Him: Death is drawing near. The poor sinner is about to take the leap off into the dark. He does not know what is before him, darkness—unconsciousness—he does not know. The only one on earth who does know is beside him. "Lord, remember me when thou comest into Thy Kingdom." And Jesus said: "To-day shalt thou be with me in Paradise, in the life at the other side." Surely such an utterance at least suggests: "To-night, when our dead bodies are hanging on the Cross, you and I will be alive at the other side and will remember our acquaintance here on earth; we shall know each other as the two who hung together this morning on Calvary."

Three hours later the Lord passed through into that Unseen Land to proclaim His glad news to the dead (1 Peter iv. 18), to unfurl His banner and set up His Cross in the great world of the departed. That journey has been made a prominent article of the Christian Creed. "He descended into Hades." It was one of the most joyous proclamations of the Early Church, His care for the souls who had passed from earth without knowing Him. Then He came back to earth in radiant bodily existence, and when He came back to His friends He was "this same Jesus," as human and as much their own as ever. The river of death had not washed out the memory of the old days nor

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destroyed the affection for the old friends. Does it not lead us to hope and believe the same of the dear ones whose hands we have folded reverently beneath the winding-sheet?

Surely Spiritism should appreciate such a confirmation of its highest hopes and aspirations.

§

Pass on to consider our relations with those beyond. The Church calls it in her Creed the Communion of Saints, which simply means sympathy and fellowship between us and the elder brothers and sisters beyond the grave, we on our side, they on their side, each interested in and remembering the other in their prayers. We remember that little picture suggested in the Epistle to the Hebrews, the galleries of Creation crowded with spirit spectators watching us run the Christian race on earth. "We are compassed about with a great cloud of witnesses, therefore let us run well." One thinks of the annual sports at a great English school, with the "old boys" watching the games in which they once took part. It is delightful to read how the great old fathers of the Church rejoiced in this thought in the old days nearest to Christ and the Apostles. Take this one instance out of a very long list. Cyprian, the martyr bishop of Carthage, had an old friend, Cornelius, and the pair of them made a bargain that whoever died first would do his part in praying and caring for the other. And we are taught to pray for them as they do for us. How can we help it if we love them and believe in prayer?

How can I cease to pray for thee? Somewhere
In God's wide universe thou art to-day.
Can He not reach thee with His tender care,
Can He not hear me when for thee I pray?
Somewhere thou livest and hast need of Him;
Somewhere thy soul sees higher heights to climb,
And somewhere, too, there may be valleys dim
Which thou must pass to reach the heights sublime.
Then all the more because thou canst not hear
Poor human words of blessing, will I pray,
O true, brave heart, God bless thee wheresoe'er
In God's wide universe thou art to-day.

§

We are taught of growth and purification in that other life before the final Heaven comes, and we are bidden to pray in the words of St. Paul that the good work begun in us here below may be perfected unto the day of Jesus Christ. You are to think of your departed boy serving at one side of the veil, as you at the other, each in the presence of Christ; you think of him as learning to fight for righteousness, to

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help the weak, to go out, mayhap, as God's brave young knight—out into the darkness after one who has missed Christ on earth.

It is a great world, a brave, noble, romantic, spiritual world to which we are bid look forward. An old friend of mine said lately before his death: "The real romance of life begins to-day." Canon Liddon once told of an old officer recounting his adventures and hairbreadth escapes in the days of the Indian Mutiny. As his hearers expressed their wonder, he quietly remarked: "I expect to see much more wonderful things than that." Since he was very old and retired from service, they could not understand. "I mean," said he, "in the first five minutes after death."

§

Has not Christianity a Spiritualism worth the teaching—that higher Spiritualism to which the best efforts of this modern cult are but as when a child is learning his A B C? Let us be thankful for any help that modern Spiritism can give. Let Spiritism raise its thought to higher reverence for that world of life and light of which we catch a few brief exciting glimpses as we stand together on the rim of the world and look out over the wall.

[*Note.*—Interested readers should refer to the author's *Gospel of the Hereafter* (Hodder & Stoughton) for a fuller exposition of the views briefly outlined in this article.—Ed.]

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FURTHER EVIDENCE OF DISCARNATE AGENCY

By J. Arthur Hill

IN dealing with clairvoyant or trance phenomena purporting to be caused more or less directly by discarnate intelligences, investigators usually proceed from one hypothesis to another somewhat in the following order:

1. Fraud: the knowledge shown, purporting to be messages from or descriptions characteristic of some spirit, being, in fact, possessed by the medium, either by accidental or deliberate acquisition.
2. Telepathy from the sitter's mind.
3. Telepathy from the mind of some other person.

Hypothesis 1 is not often ruled out by one or two sittings, but is usually eliminated by accumulation of data, if we have the good fortune to be working with a sensitive of any considerable power. In my own experience with Mr. A. Wilkinson, fraud was definitely abandoned as a satisfactory explanation after a series of incidents described in my *Psychical Investigations*, pp. 11-197. The details were too full and exact, the characterisation of my deceased relatives and friends too correct, for a fraud hypothesis to be any longer permissible. Moreover, on several occasions, unexpected spirits turned up, sometimes known to me and sometimes not, and there was some connection between the facts given and a recent visitor of mine, as if the latter had left some influence which enabled his or her friends to communicate. Some of these incidents were very striking, and could not be explained on a fraud theory without supposing that the medium employed detectives to watch two doors of my house (leading into two different roads) for at least three days before the sitting, then making inquiries concerning the deceased relatives of the person discovered to have been my last visitor. Such a supposition is possible, and is likely to be the one favoured by some sceptical readers of such records; but for the investigator himself, knowing all the facts and better able to estimate probabilities than the outsider, there comes a point when the accumulation of facts renders such an explanation improbable even to incredibility, and some supernormal hypothesis has to be at least provisionally adopted.

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We arrive, then, at telepathy from the sitter as the least step we can take. And this may be concerned with either of two sources. (*a*) The sitter's conscious mind. (*b*) His subliminal mental levels, where "forgotten" things certainly to some extent continue to be remembered. It is fairly easy to get beyond telepathy from one's conscious levels, for most people who have investigated much have received facts characteristic of the purporting spirit but going beyond their own conscious knowledge, and beyond what could reasonably be supposed to be the extent of the medium's knowledge. But it is difficult to rule out possible telepathy from one's subliminal consciousness, for we cannot prove that any given fact was never known to us. We have to weigh the respective probabilities, as so frequently happens in this research; but it may safely be said that patient investigators are sooner or later faced with facts which they do not believe that they ever knew, and are thus driven beyond any possible telepathy-from-the-sitter explanation. In order to present my case in concrete form, I will here quote briefly an incident in one of my sittings, held on November 9th, 1916: medium, Mr. A. Wilkinson. The clairvoyance was normal, not trance:

A.W.: Did you know somebody called Ruth Robertshaw? R-U-T-H.
J.A.H.: I don't remember anybody at the moment.
A.W.: About sixty-three or sixty-four. She has known somebody who has been here. Ruth Robertshaw is not a common combination. I saw her perfectly. A crescent-shaped light was over her head, and her face was illumined. She would be inclined to be rather pious in her way.
This woman Ruth is no relation to you, I think. There was a gentleman belonging to her called Jacob. I think he would be her husband. Whoever he was, he was older than her. He would be seventy-three. She would be about ten years younger; it may be in the time between them passing away—I'm not sure. I don't see him; I only hear it.

All this conveyed nothing to me. But previous experience warned me not to dismiss it hastily, and it occurred to me to write to the last visitor I had had, three days before, in case the two people belonged to her; though it seemed unlikely, for her name was North, and I knew of no Robertshaws among her relatives or friends. She lived at a distance of some miles; she had never met Wilkinson, and I had never mentioned her to him; she was not a spiritualist or psychical researcher; and I have no reason to believe that the medium knew of her existence. She was an acquaintance of ours who called rarely, perhaps three times a year. Her reply to my letter was: "You make me feel creepy. Ruth Robertshaw was my father's cousin—one of the sweetest women that ever lived. She was a beautiful old lady when I knew her, and *good*. Jacob was her husband. The ages given are just about right." Afterwards I ascertained that the ages were sixty-three and seventy-three, as said. The medium also made statements in the nature of messages from these two people concerning a family which turned out to be related to them, but which was unknown to me. A

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member of this family was stated to be ill, and appropriate things were said. Everything was found to be true.

It is certain that I had no conscious knowledge of these people. As to subliminal ("forgotten") knowledge, I cannot prove anything either way; but for reasons which I have not space to detail, I am convinced that I had no subliminal knowledge of the facts given. Telepathy from any part of my mind, therefore, seemed as improbable as previous fraudulent inquiry on the part of the medium.

Here we arrive at the hypothesis with which I am mainly concerned in this article. The knowledge shown was not, to the best of my belief, possessed by either the medium or myself. But it was possessed by someone known to me—namely, Miss North; and my friend Mr. Hubert Wales quite legitimately suggests that the medium somehow (and probably without knowing that he did it) was able to read Miss North's mind through mine. Andrew Lang used to suggest some thing of the same sort. It is a difficult hypothesis, and its propounders have to be people of powerful imagination. It is perhaps not surprising that Mr. Lang and Mr. Wales have been successful writers of fiction. Still, the hypothesis has to be considered, even though it may seem to us no more than an imaginative guess. Until it is negatived by actual evidence, it is at least a *possible* supposition. According to it, then, any facts given by a medium may have been telepathically acquired if they are known to anyone with whom the sitter has been in contact. What is required to refute the hypothesis is evidence characteristic of some spirit whose name and affairs were unknown in life not only to the sitter but to anyone known to him. This seems likely to be a difficult thing to get, for in most cases the evidence would be difficult or impossible to verify.

However, my friends on the other side (if for the moment I may speak spiritistically) seemed to perceive the evidential necessities of the situation and to set themselves to provide the sort of facts required. I must here mention that I never discuss the scientific aspect of the investigation with the medium, and he was quite unaware of my difficulties or that I was wanting any particular *sort* of evidence. Now to the facts:

On March 22nd, 1918, I introduced anonymously two bereaved people to Wilkinson at my home, and a certain amount of evidential matter was obtained, some for me and some for them. (Incidentally it may be mentioned that these people were so sceptical, or at least so afraid of any possible leakage of information, that they asked to be allowed to come without telling me their names or anything about themselves; to which I agreed. Bereavement is sometimes said to make people uncritical in these matters, but I have not found it so.) Towards the end of the sitting, Wilkinson said:

"There is some young man behind me all the time Been a soldier; been in

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an infantry regiment. I see and feel the dress. I don't know whether you [the two visitors] have brought him or not. Age thirty or more. A big chap. It was the Buffs. Perhaps it is someone you may hear of."

Wilkinson then asked my sister to take the place of Mrs. Smith, (not knowing their name, I called them Smith *pro tem.*), who was sitting at his left hand, myself at his right. She did so. He then took up the pad and pencil, and wrote something, saying, "This is unusual." (He had not got any automatic writing at my sittings for some time.) He gave the pad to me, and I saw that the writing was:

Napier Lund, The Buffs. 1916.
3
1 B
2 N
3

This meant nothing to me except that it reminded me of a Mrs. Lund from Northumberland, who once had a sitting with Wilkinson at my house. But in her case the desired communicator was her brother, whose surname was not Lund. The paper was passed round, but meant nothing to anybody.

In a few minutes Wilkinson said: "The writing is to do with the man I saw behind me"; and, taking the pad again, he made some addition and handed it back to me. It then read:

Napier Lund, The Buffs. 1916.
3
1 B
2 N
3

Write Father R
Have had a reception.
Please write Father. R.

Being associated to some extent with Sir Oliver Lodge in psychical affairs, I supposed that the purporting communicator was Raymond Lodge. I accordingly said: "I think I know who to write to, but should like to know what I am to write." (This was said with the idea of eliciting further evidential matter.) I handed the pad back to Wilkinson, who wrote automatically:

Mention Willoughby Cross.

The paper was handed round, and the name was unknown to all present. I said I would make inquiries. Wilkinson seemed much puzzled and rather distressed, saying that all the names were unknown to him and that he was afraid they might be all wrong.

The only thing that the writing suggested to me, beyond the supposition that Raymond was the agent, was that the Lunds mentioned might be friends of the Lodge family, for I knew that the latter were acquainted with people of that name. I wrote to Sir Oliver, enclosing a copy of the script, and he replied as follows:

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"The Wilkinson script of March 22nd meant nothing to me, but I asked my daughters at breakfast whether they knew a Napier Lund. They said, 'Certainly, a young cousin of the Lunds, who has been killed; he had a brother Basil.' I said, 'Was Basil the elder?' but they did not know. I said, 'Was there another child?' They said they thought so, perhaps a daughter. This was afterwards confirmed by Lady Lodge.

"I then said, 'Do you know what regiment he was in?' and they said some southern regiment, the Buffs, they thought.

"So when I showed them your copy of the script they were much interested. Up to that I had shown them nothing, nor told them why I was asking. They seem to know both Napier and Basil Lund, and to like them. Both have been killed.

"I asked if they knew any Crosses. They said, 'Yes,' but they did not know of a Willoughby Cross. I propose to ask further about that."

I quote this *in extenso* because, as will afterwards appear, it is an important point in the evidence that Sir Oliver himself could not confirm the script from his own knowledge.

It will be noted that Wilkinson asked Mrs. Smith and my sister to change places. I saw no reason for this, and I do not think he knew why he suggested it. It seemed to be an impulse or intuition. Apparently it was an impression from Raymond, who wished to eliminate the Smith influence, which was unknown to him, and to surround the medium with ours instead, which would feel more known and helpful. It is also noteworthy that Wilkinson saw the soldier in a position behind him, which perhaps indicated that he did not belong either to the Smiths or to me; for such forms are usually seen near the person for whom they seem to come.

When the writing began, Wilkinson had been talking animatedly to the Smiths, and he seemed to think at first that the script was for them. But as it progressed he looked more and more at me, with a puzzled and troubled look; and he handed the pad to me after each instalment. I think he began to have a dim notion that the writing concerned me rather than the Smiths.

On April 5th, 1918, I had another sitting with Wilkinson, and at the beginning I told him that the script of March 22nd was very good; that Napier Lund was correct, that he was in the Buffs, and that the figure 3 seemed to be a reference to three people in the family, one of them a daughter. I told him all this, somewhat contrary to my custom, because he seemed so interested and also anxious; for the writing had been unusual, and he was afraid that it might mean nothing, so I wanted to encourage him as much as possible.

In the sitting, after a few things concerning my own affairs and concerning some objects from an unknown distant person which I had been using as tests for psychometry, Wilkinson broke off and said:

"There is some young man, tall, in khaki. A big chap, young, clean-shaven, rather deep brow, darkish hair. I can see his face to the side of you [J.A.H.]. Smart build. An officer, not a private soldier." [The medium here writes something.]

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"This is going to be the same as before; it was Napier Lund. [Looks at writing.] Why, it is Napier Stuart! I was expecting Lund, and my hand wrote Stuart! I am sure I never thought of Stuart. I don't think it was Napier Lund that I described. [Writes again.]

"I wonder what that stands for, E.K.? [Writes again.]

"The Buffs. East Kents. Napier Lund. That is funny. I wonder who it is that is writing. My hand would go right fast if I would let it."

J.A.H.: Well, let it go.

A.W.: But I want it to be legible. [Hands script to J.A.H. It was as follows]:

Napier Stuart, E.K.
The Buffs. East Kents.
Had a brother Basil who comes along as well.
We are jolly. "Also of the Buffs."

Wilkinson said: "It bothers me that it said Lund before, and now Stuart." I assured him, however, that it would probably turn out right somehow, as the earlier script had done. After an interlude of very good evidential matter concerning some deceased friends of mine, the medium got some more writing, and said:

"Your supposition must be wrong about the daughter, for it says, 'We are brothers.' [Gives script to J.A.H. It contained additional matter as follows]:

The old Major-General is here.

1 N We are brothers
2 B
3 A not the Buffs

General Willoughby Cross.
Irish.

A roughly-drawn bracket did not clearly indicate whether it was meant to include all three, or only two, as brothers. I said something to that effect, still holding to the opinion that the third was a daughter. As we found later, Lady Lodge was quite right about there being a daughter, in fact two; but they are still living in the flesh. The A turned out to apply to a brother named Arthur who had died about the same time as Napier and Basil.

After other matter relating to me, Wilkinson said:

"I should not think it is these people who are writing: somebody else seems to be doing it for them. [Probably Raymond.]

"It must be right, there were three brothers. That will be painful, if three brothers are killed. You had better not tell them."

[No doubt thinking that perhaps the news of the third casualty had not yet arrived normally.]

J.A.H.: We will be careful not to cause anyone pain.

A.W.: This writing is peculiar. I don't remember ever having anything like this before. You said the third might be a daughter, and I was impressed to write that it was three brothers. It would be interesting to find out.

J.A.H.: Yes, we will find out.

Wilkinson here gave me the script, which in full was as follows:

Napier Stuart, East Kents.
Had a brother Basil who comes along as well.
We are jolly. "Also of the Buffs." [Referring to Basil, apparently.]
The old Major-General is here.

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1 N.S.
2 B We are brothers
3 A not the Buffs.
General Willoughby Cross.
Irish.
1 N.S.
2 B 3 brothers.
3 A

I sent a report to Sir Oliver, who, however, was away. On his return he wrote:

"I have returned home, and one of the first questions I asked my daughters was: 'Who is Napier Stuart?' One of the twins did not know, but the other one said that Stuart was Napier Lund's second name. Hence the Napier Stuart seems to be correct. But they know nothing of a third brother, named A."

Sir Oliver further remarked that he would make inquiries through a friend who knew more of the Lund family.

At my next sitting, on April 11th, 1918, there was an attempt at further automatic writing, and the names Basil Lund and Napier Stuart Lund were written, but nothing new appeared except the figures 26 and 30, which I took to be the ages of the soldiers mentioned. These turned out correct.

At my next sitting, on June 7th, 1918, after some evidential matter concerning a soldier who had been killed and whose mother I knew, the medium said:

"There is another young man here, named Lund. Not a soldier. Not very young; I have a feeling that he would be getting set in body, and perhaps 36 or 37. Dark clothes, ordinary attire. Well dressed. He had something to do with those other Lunds that the script was about. The name is Arthur, and he was the eldest of them. There were four sons, and the fourth has died young—a child."

This last item about a child was new to me, and I felt pretty sure it was wrong; for by this time I had obtained a good deal of information about the Lunds, and there had been no mention of any child having died. But on further inquiry it turned out true.

"This Arthur was able to do things. Artistic temperament, rather refined. Moved on some circle rather above the ordinary. He died naturally. There are four on that side."

Then followed matter which I must omit because it would reveal identities. I have used pseudonyms for the real names, and for the regiment (but the real name and its popular one have the same relationship as the two pseudonyms used), this being requested by living relatives of the "Lunds." Such reports as these are rightly subjected to cold scientific criticism, and are unfortunately sometimes attacked in unscientific and violent ways by sceptics; it is consequently natural enough that living relatives stipulate that names shall be disguised. However, the disguise does not affect the evidential weight of the incidents.

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Now to discuss these details and to point out their bearing on the hypothesis of Mr. Lang and Mr. Wales.

Practically all the details given are correct. To save space I have omitted full description of the gradual verification of first one and then another incident, and it suffices to say that everything was right, except that Willoughby Cross, so far as we can at present make out, was not Major-General, but Colonel, of an Irish regiment. There is no certainty on the point; he died in India, and may have been Acting Major-General: we are not sure. Everything else is right. Napier Stuart Lund and his brother Basil Lund were known to Raymond Lodge—in fact, the acquaintance was more than a casual one, for there was a family connection—and the three of them went through part of their training at the same camp. It is quite in keeping with the facts that Raymond should bring them. The brother Arthur also was known to him, being, indeed, mainly concerned, with an officer friend, in fixing up Raymond's commission. Nothing of this, however, did I know. Nor, indeed, did Sir Oliver, for he was in Australia when the war broke out and Raymond joined up.

The critic's first point will be: Could the medium possess all the information in his own mind, by casual or purposed acquisition? Well, as I have said already, there is no certainty in any inductive problem, and you cannot prove to a sceptic that the sun will rise to-morrow; but for my part I do not believe that Wilkinson possessed the knowledge. The total evidence was wider than I have been able to quote. It extended in several directions, referring to people known to Raymond Lodge in connections remote from the Lunds. It is incredible to me that the medium could have got up the case, and equally incredible that he could have such full and accurate casual knowledge of Raymond's friends and distant family connections. On the other hand, everything is in keeping if we admit the possibility of survival and communication. This is the kind of thing that we should expect Raymond to do for us—the bringing of evidence of this specially ingenious and significant kind. And it must be remembered that we are not dealing with a new medium of whom nothing is known, but with one whose supernormal powers have been proved by many years of systematic and very careful investigation.

A notable point, in view of the often-made suggestion that the sitter's mind influences the medium's statements, is the insistence of the script on the fact of the three being brothers, in face of my insistence that the third was a daughter. Similarly about the fourth son who had died in childhood. I felt sure that this was wrong—the verifications so far having mentioned no fourth son—but it turned out right. As a matter of fact, I have never found my own thoughts reflected by Wilkinson's clairvoyance, or even influencing it in the

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smallest degree. On the contrary, I have noticed on several occasions that, though a description suggested a certain person to my mind, the clairvoyance would go steadily on with its thread and the person would turn out to be someone of whom I had not been thinking. This seems to argue the operation of a mind external to the medium—a mind which knows very well what it is wanting to get through. I have never yet been able to perceive in my sittings any evidence of telepathy from my mind.

In the series of incidents under discussion, telepathy from my mind is ruled out by still stronger considerations. I certainly had no conscious knowledge of any of the facts given. Telepathy from my subliminal cannot be disproved in any coercive way, but I am as sure as I am of anything in this world that I had never known anything about these Lunds, and that consequently the theory of my possessing "forgotten" knowledge is unacceptable. I had no sort of interest in them; they lived far away from me, they were not interested in Psychical Research, and, in short, our orbits were wide apart. Of that branch of the "Lund" family—they were cousins of the Lunds who are acquaintances of the Lodges—I am convinced that I had never heard.

But the telepathic theory, when pressed as far as it is possible to press it by ingenious people like Mr. Lang and Mr. Wales, postulates that not only the mind of the sitter may be read, but also the mind of anyone known to him. In this case, however, most of the facts were not known to anyone I had ever met. Sir Oliver Lodge, the reader will notice, knew hardly any of them, and most of the matter had to be verified by application to people of whose existence, even, I was unaware, and of whose existence Wilkinson, to the best of my belief, was equally ignorant. This "link" telepathy—the reading of some mind which is known to the sitter—is therefore ruled out as an explanation of the facts just related. Mr. Wales himself admits (I gave him an outline of what had been occurring) that if everything is as stated his theory is untenable.

There remains the possibility of telepathy from some mind unknown to either medium or sitter. I confess that this makes too great a demand on my credulity. It may be true, but the probabilities seem heavily against it. Moreover, even if such a thing can occur, who or what is it that selects from those distant and unknown minds just the facts which count as evidence for the identity of the purporting communicator? I had never heard of these Lunds. They had never heard of me or of Wilkinson. Wilkinson had never heard of them. Who or what, then, went and picked out of the minds of surviving members of the family all these facts in a manner which dramatises itself as and which is quite characteristic of Raymond and his friends? Again, the matter is not limited to the Lunds. The Willoughby Cross was not a Lund connection, and was not known to them, even by

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name; but he was related to friends of the Lodges in another direction. There were details concerning another person in still another direction, which I have omitted for the sake of space and clearness. If it was telepathy from distant minds, we have to assume several of them, all unknown to Wilkinson, and all living at great distances from him, in different parts of the country.

I do not say that such an assumption is impossible, but it raises many difficulties. It can hardly be called more than a guess, and anyone holding it has at once to admit complete ignorance when asked to explain the process or to answer the simple question: "Who selects the right facts?" The facts we have been discussing fall into place, and everything is natural and what we should expect, on the supposition that the communicators are what they say they are. If we assume that they are subliminal fractions, and that somehow a telepathic hoax is being worked on us, the situation seems to resolve itself into chaos, of a rather diabolic sort. Perhaps it would therefore please some of our Catholic friends, such as Father Vaughan! But it seems to me that the hypothesis of discarnate agency, as claimed, is the most reasonable and therefore the most scientific explanation of the facts just related, when they are considered in conjunction with the other results of investigation of the same medium.

[*The real names of the persons concerned in this case, and of the regiment, have been communicated to us, and we can endorse the author's statement that the substitution of pseudonyms does not in any way affect the evidential value of the case.—Ed. P.R.Q.*]

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VITAL ENERGY AND PSYCHICAL PHENOMENA

By Hereward Carrington, Ph.D.

THE close relationship which "occultists," followers of Yoga philosophy, and many Psychical Researchers, believe to exist between the vital energies of the body and psychical phenomena, has, I believe, never been duly appreciated by the majority of psychic investigators. Yet it is very evident that a large number of these phenomena depend to a very great extent upon the exercise of some vital life power for their production; and it may be said that practically all of them depend upon the presence of *life*, or of a living person, for their manifestation. Bulwer Lytton saw this with his customary remarkable insight, and in his story *The Haunters and the Haunted*, he wrote:

> "In all that I had witnessed, and indeed in all the wonders which the amateurs of mystery in our age record as facts, a material human agency is always required. On the continent you will still find magicians who assert that they can raise spirits. Assume for the moment that they assert truly; still the living material form of the magician is present, and he is the material agency by which, from some constitutional peculiarities, certain strange phenomena are represented to your natural senses. . . . Accept, again, as truthful the tales of spirit manifestation in America, produced by no discernible hand—articles of furniture moved about without visible human agency, or the actual sight and touch of hands to which no bodies seem to belong—still there must be found the 'medium' or living being with constitutional peculiarities capable of obtaining these signs. In fine, in all such marvels, supposing even that there is no imposture, there must be a human being like ourselves, by whom, or through whom, the effects presented to human beings are produced."

The only possible exceptions to this rule which might be urged, are: (1) haunted houses, and (2) instruments which act or are acted upon intelligently, in the absence of a medium or of any living person.

With regard to haunted houses, however, it may be pointed out that we have no *proof* that these phenomena continue in the absence of

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an observer. They may, and they may not. When no observer is present, of course we have no means of telling whether the phenomena exist; and when he *is* present, we again have a living being introduced into the problem! Instrumental tests would seem to be a good means of settling this question, but with one or two exceptions all those that have been tried to date, so far as I know, have failed. The instrument devised by Doctors Matla and Zaalberg van Zelst, of the Hague, did apparently succeed in recording a number of definite and intelligent "communications" when placed in a room by itself, and I have summarised their researches in my *Modern Psychical Phenomena* (pp. 155-68). These experiments, however, have been subjected to various criticisms, and I do not know to what extent their work has been followed up either by the experimenters themselves or by others. This case, therefore, while extremely suggestive and valuable, so far as it goes, is still *sub judice*. The same may be said of Dr. Wilson's experiments with his "psychic telegraph"—which, by the way, seems to have been lost sight of in the mystic clouds of obscurity. It has been asserted that Thomas Edison is building a machine along somewhat similar lines; but Mr. Edison has informed me that the machine in question is intended to register biological or vital phenomena of a delicate nature, rather than "psychic" phenomena, as investigated by the Psychical Researcher. Doubtless his results, when published, will be of the utmost possible value, but they cannot be said to supply any additional information regarding the possibility of "instrumental communication with the spirit world."

We seem driven to believe, therefore, that *life* in some form or other is a necessary ingredient in any psychical phenomenon—mental or physical; and until proof be obtained to the contrary, we shall have to assume that this is true.

The nature and operation of the life force within the body is, of course, mysterious in itself. We know nothing as to its innermost "essence" or character; we merely observe its phenomena or manifestations. When the little finger is moved, for example, in obedience to a direct and conscious volitional act, we have here at least two problems which are as yet unsolved: (1) The precise nature of the nervous impulse itself; and (2) the connection between the psychic act of volition and the origin of the motor, nervous impulse. (This is, of course, merely one aspect of the well-known problem of the connection of mind and matter.) I may add that the nature of the volitional act itself is still a mystery, and that if an act of will represents an expression or liberation of a *real energy*, as many of us believe, this is also a problem of enormous interest, and as yet totally unsolved by any of the schools of orthodox psychology.

All this, however, is part of the problem included within the normal sphere of psycho-physiology. Beyond this, we come to the more

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definitely "psychical" phenomena. In the normal human being, this motor nervous current theoretically terminates at the periphery, but in "mediums" it is apparently *externalised*, or projected outwards into space beyond the limits of the medium's body. It is this energy which moves material objects in the immediate vicinity of the medium (*telekinesis*), and is capable of being moulded or manipulated into hands, heads, and phantasmal forms, by means of the subconscious mind of the medium, or by the mind of some external entity (materialisation). It is evident, however, that we have in such cases an externalisation of more than a mere energy: we have in addition to this a form of matter which is also externalised, and which at times can be sufficiently condensed or solidified to enable it to be seen, felt, and photographed. In the latter case, it must of course be of sufficient density to reflect light-waves. The recent researches of Baron von Schrenck-Notzing, Madame Bisson, and others, with Eva C., and those of Dr. W. J. Crawford, with Miss Goligher, have served to establish this fact with certitude—*viz.*, that we have here cases of externalisation, not only of vital energy, but also of some actual constituents of the body itself beyond the limits of that body.

These newer phenomena, I may say, appear to be in many respects very different from the materialisations which we observed in the case of Eusapia Palladino. In the latter case, there seemed to be no visible or physical bridge between the materialised hand (say) and the medium's body. There seemed to be a perfectly clear space of from one to three or four feet, separating the materialised hand from the body of the medium, and in this space one could discern no bond or connection of any kind. Of course, such a bond may have existed, and doubtless did exist—though invisible. It is conceivable that, in such cases, the "energy of consolidation," so to speak, was condensed in the hand itself, and that a minimum of energy was utilised in the structure and maintenance of the connection or arm joining the hand to some part of the medium's body. Dr. Crawford tells us that his psychic structures remained for many months invisible, and that numerous photographs were taken before any trace of them was left upon a photographic plate. So far as I am aware, no "psychic structures" of the kind were ever photographed, issuing from Eusapia's body—though they were *seen* to issue on various occasions.

Another point of difference is that Dr. Crawford's "structures" remained visible for relatively long periods of time, whereas the materialisations, in the case of Eusapia, were extremely fleeting and momentary. They had come and gone almost before one realised it. On the contrary, Dr. Crawford's structures closely resemble, in many respects, the "psychoplasm" issuing from the body of Eva C. In both these cases, it is very evident that the degree of consolidation reached, exterior to the body of the medium, was far greater and more

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permanent than the materialisations which were witnessed in the case of Eusapia Palladino.

Superficially considered, the so-called psychic structures photographed by Dr. Crawford appear to be extremely suspicious in character.[1] They appear to be mere loopings or drapings of fine muslin, or some similar material. And it is only the previous character of Dr. Crawford's careful work, and certain unexplained peculiarities of the structure itself, which force us to accept the possibly genuine character of these structures as exhibited in the photographs. Of course, to one such as myself, who is already convinced of the reality of genuine materialisation, the strain upon one's credulity is lessened, but it is not altogether overcome! We may assume, however, in view of the facts, and until evidence to the contrary be produced, that these structures are genuine, and represent actual externalisations of force, and of some form of matter issuing from the medium's body.

Whatever their ultimate nature may prove to be, however, it is certain, to my mind at least, that exteriorisation of neuric force takes place, and that in these materisalisations, in addition to the matter itself, we have an actual externalisation of some form of life-energy, more or less sentient, and capable of controlling and manipulating this matter—as we have in cases of "telekinesis."

Were the orthodox physiological teachings true, however, such "exteriorisations" would be not only impossible but an utter absurdity. Obviously there can be no nervous current where there are no nerves! If life be bound up with the body—and, in fact, a mere *product* of the bodily functioning—the existence of life or vitality outside the limits of that body would be inconceivable; and this is what physiology teaches us. Vital energy, we are told, is the mere product of chemical combustion going on within the body—the result of the combustion of food. The analogy of the steam-engine is that usually employed. Here food (fuel) is burnt-up within the engine, thereby generating a certain measurable amount of energy which can be utilised to run the engine. Similarly, it is held, fuel (food) when burnt-up in the body, supplies a certain measurable amount of energy, which serves to run the body. The life force, in other words, is the actual product of food combustion, and all the internal and external muscular activities of the body—the energy utilised by thought, etc.—are but various ways of expending or utilising this energy, derived from food. There is nothing more mysterious in the one case than in the other! Here, as in the case of the engine, there is always a correspondence, an equivalence. The more coal we put into the engine, the more energy is evolved and the more food (fuel) we ingest into the body and oxidise or burn-up, the greater the amount of bodily energy we possess.

In my book *Vitality, Fasting, and Nutrition*, I endeavoured to

[1] *The Psychic Research Quarterly*, Vol. I, No. 2.

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show at considerable length why this theory cannot be true, and why the analogy of the body to the steam-engine is not correct. It would be impossible in this place even to epitomise the arguments there advanced, and I shall merely call attention to two or three points which, in my estimation, render the analogy fallacious. In the first place, the human body requires rest and sleep, and the steam-engine does not. No matter how much food we may ingest and oxidise, there comes a time, nevertheless, when we must have sleep, or death results. This is not the case with the steam-engine; and this fact of *sleep* differentiates the body from any form of steam-engine so far devised. Again, observations upon fasting cases have shown us that there is an extraordinary and unaccountable *gain* of energy as the fast progresses. It must be understood here, however, that there is a radical distinction between "fasting" and "starvation." *Fasting* is a scientific method of ridding the body of impurities and mal-assimilated food material; whereas in *starvation* the body feeds upon its own healthy tissues, thereby bringing about its own ultimate destruction. I cannot here enter into these physiological questions at greater length, and must refer the interested reader to the book itself. Here I need only say that these cases have convinced me that the bodily energy does not depend upon food combustion, in the sense usually supposed, but only in a more indirect manner.

My own belief is that the body resembles, not so much the steam-engine as the *electric motor*, which is recharged by energy from an external source. The human body, similarly, is recharged during the hours of rest and sleep—the nervous mechanism being the medium through or by means of which this "recharging" process takes place. This energy is, of course, expended in the usual ways (muscular exertion, etc.) during the waking hours.

All the known physiological facts can be accounted for on this theory just as readily as on the prevailing theory, now taught by orthodox physiology. Take, for example, the experiments in calorimetry. These show us that there is a definite equivalence between the amount of food utilised by the body and the amount of work done—just as there is an equivalence between the amount of coal shovelled into the engine and the amount of heat and energy emitted; but this equivalence in the human body may be just as readily accounted for in another way. The facts would still stand; the difference would lie in their interpretation. An alternative view of the facts would be the following: Energy acts or plays upon matter, and matter wastes in proportion to the amount of energy thus exercised. The wastes of the body would, of course, be replaced by the food eaten; the more it wastes the more replacement is necessary, etc. The exact "equivalence" would thus always be maintained, but this would not show us that the food actually *created* the energy utilised.

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Food would merely replace tissue which had been broken down as the result of vital activity.

> "If a spade is used in digging, the spade wastes in proportion to every spadeful of earth it is made to lift. The more it digs, the more it wastes. If we could arrange that a stream of fine steel particles flowed into the spade, to replace the waste caused by each act of digging, we might perhaps come to think that these fine steel particles were the *cause* of the digging—especially as the quantity of them required would always be exactly proportionate to the amount of work done. Nevertheless, this would be a very inconsequent assumption. So it would be also if we were to infer, because the motors at the bottom of the electric tram-car waste as they are used by electric energy as the means of doing work, and if we could arrange that this waste should be made good by some self-acting mechanism—as well might we imagine that the steel particles flowing in were the *cause* of the work done, as that the food is the cause of the work done by the human body."

I do not know if I have made this sufficiently clear, but the point here made is that the body more nearly resembles the electric motor than the steam-engine; that the body replaces its energy through sleep and not through food; that all the facts of calorimetry can be explained just as readily on the one theory as on the other; that there is no evidence to prove that food combustion actually "creates" the vital energy of the body—since *coincidence* does not prove *causation*, and that there are many facts which fall into line on this newer theory, which enable us to explain them fully, and also to explain these curious "psychical" phenomena, which the orthodox physiological theory does not.

To one other fact in this connection I must, however, draw the reader's attention. Physiology tells us that the mental energies are merely one aspect of the general energy of the body—utilised as thought instead of as muscular activity. This (usual) theory does not, however, explain to us how it is that this particular energy can be transformed into consciousness and intelligence, while none of the other energy in the body is so transformed. Thought and the operations of consciousness possess *meaning*—which none of the other energies do—and we know that so great a psychologist as William MacDougall (in his *Body and Mind*) has expressed his conviction that "meaning" is not representable in physiological terms. The doctrine of the conservation of energy tells us that all energies can be transmuted or transformed one into another, and also re-converted; but if such be true of the mental energies, we would have something "left over" in our equation; for, in this case, we would have energy *plus something*

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(thought), and the "plus something" would be unaccounted for, and in turn would be lost when the energy of thought was re-transformed into some other mode of energy! This fact has never been fully taken into account by orthodox physiology, but it is a very important point which can by no means be overlooked.

It is impossible to elaborate this theory further here. I may only say that some such view of the facts is maintained, in more or less modified form, by M. Bergson, by Mr. Whately Smith, by myself and, in a sense, by the School of Vitalists. Such a view of the facts, as I have before said, enables us to account for all observed physiological phenomena, while at the same time enabling us to account for these obscure and otherwise unaccountable facts of Psychical Research—such as exteriorisation of motivity, materialisation, etc. For, if life exists apart from the body, and merely manifests *through* it, using it as an instrument for the purposes of such manifestation, then we can readily see how life may manifest, at times, outside or beyond the legitimate confines of the body. This view, in short, represents merely an extension of William James' "Transmissive" Theory of Consciousness (see his *Human Immortality*) to the *whole* of our life and vital energies. And if life be an energy, separate and apart from the body, merely utilising it, or manifesting through it, for the purposes of its phenomenal expression, then we may readily conceive that this life-force might exist quite apart from the physical body—not only in this life, but in some other sphere of activity, after the permanent destruction of the physical body itself. I am quite convinced that this interpretation of biological phenomena will furnish us the key, not only to the known and unknown physiological activities of the body, but also to those obscure and hitherto unrecognised psychical phenomena which are as yet unexplained and inexplicable on current and generally-accepted biological theories.

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CORRESPONDENCE

To the Editor of the PSYCHIC RESEARCH QUARTERLY.

DEAR SIR,

I am grateful to Dr. McDougall for his review of my book on *Spiritual Pluralism* which appears in the October number of the *Psychic Research Quarterly*, for it contains just the kind of criticism which is most helpful. In particular, it brings out what I feel may be a certain lack of clearness in the presentation of my theory, for I think that Dr. McDougall has misunderstood me on certain points, two of which are crucial for the theory in question. I should therefore be very grateful if you could spare me space to refer briefly to these two points.

In the first place, while postulating for my own purposes a ground of our sense-data (namely, entities akin to ourselves, though *often differing in degree of development very widely from us*), I do not, to quote Dr. McDougall's words, "deny a similar liberty to the physical sciences." I merely affirm that while the propositions of these sciences may appear to postulate or to infer a ground of our sense-data (*e.g.*, atoms or electrons), they do not really do so. All their propositions, when analysed, turn out to be (indeed, must inevitably be, in view of the nature of the method of physical science) statements about sense-data—atoms, etc., being logical constructions of the latter. And again, when I say that the objects of the "physical" world are logical functions of sense-data, while at the same time *postulating* (by reason of the facts of sense-perception) selves as the entities of which sense-data are the appearance, I simply mean that the realm of which physical science treats is the realm of sense-data, the "material bodies" and "material particles" which occur in the statements of physics being functions of sense-data. In other words, I do not try to "soften the difficulty of conceiving [physical objects] as psychical subjects" (again to quote Dr. McDougall), for I do not attempt to offer any such conception. On the contrary, my hypothesis is that physical objects, *i.e.*, the entities referred to in the propositions of physics, are *appearances*, or functions of appearances, of psychical subjects, and therefore by no means identical with the latter.

The second point with which I am concerned is the matter of the non-temporality of the self. Dr. McDougall points out that while affirming this, I yet speak of selves, in certain parts of my book, in temporal terms. But it was against just such a criticism as this that I definitely safeguarded myself on pp. 44 and 45, where I point out that whereas, in order to avoid intolerable prolixity, it is frequently necessary to speak in terms which

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apparently imply the temporality of the self, in reality the temporal reference in all such statements is to parts of the *object* of experience and not to the subject.

Finally Dr. McDougall seems to accuse me of smuggling into my hypothesis, by postulating the non-temporality and non-spatiality of selves, the very explanation I want to get out of it, and then of producing results as a conjurer produces rabbits out of a hat. But I must protest that I do not merely *postulate* as a hypothesis the non-temporality and non-spatiality of selves; on the contrary, I explicitly affirm it to be a fact, giving definite reasons for the affirmation, *e.g.*, on pp. 44 and 171 ff.

Yours faithfully,
C. A. RICHARDSON.

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Newcastle-on-Tyne.

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REVIEWS OF BOOKS

Phenomena of Materialisation. By BARON VON SCHRENCK-NOTZING. Translated by E. E. FOURNIER D'ALBE, D.Sc. Pp. xii. + 340, with 225 illustrations. (London: Kegan Paul, Trench, Trubner & Co., Ltd., 35s. net.)

Books of real importance in Psychical Research are all too few and far between, but however widely opinions may differ about the investigations described in this volume—and they are certain to become the centre of much controversy—there can be no doubt that they constitute by far the most noteworthy contribution to the subject which has been made in recent years.

The case of "Eva C.," which the author describes with the greatest thoroughness, must unquestionably be ranked with those of D. D. Home, Eusapia Paladino, Mrs. Piper, Miss Goligher, and a few others, as one of the great classical cases in the history of Psychical Research.

This would still be true even if, as some facile critics will instantly assert, the phenomena described were wholly fraudulent. For the hypothesis of fraud would involve problems of method, of motive and of the psychology of deception only less interesting than those which arise if the phenomena are accepted as genuine.

For the benefit of readers who are wholly unacquainted with the case I may explain that these phenomena consist in the apparent "materialisation" by the entranced medium—thoroughly searched and adequately controlled throughout—of masses of a plastic substance which may take forms ranging from amorphous streamers, ribbons and patches to comparatively clearly-defined heads and hands or even full-length figures. These usually appear flat, as if cut out of paper, but sometimes give the appearance of a mask-like relief. They seem to be extruded from and subsequently re-absorbed into the body of the medium—generally *via* the mouth—and have been observed when she has been completely nude. They can readily be photographed by flashlight, and some two hundred such photographs are reproduced in this volume. There is therefore no question of "hallucination" or, in this sense, of faulty observation, and critics who are—not unnaturally—unwilling to accept the phenomena and their astounding implications at their face value must concentrate on the question of whether the medium could, under the conditions imposed, have introduced the objects photographed into the séance room, have produced, displayed, and finally concealed them without discovery.

I have no doubt that many people will adopt this view at once, but although I freely confess that the whole case puzzles me more than any other with which I am acquainted, I equally have no hesitation in saying

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that this view involves difficulties at least comparable with those which impede our acceptance of the phenomena as genuine.

It must be admitted that, although there is no *positive* evidence of fraud, there are—quite apart from the intrinsic incredibility of the phenomena—a number of features which, at first sight, appear extraordinarily suspicious.

Chief among these is the fact that many of the "materialisations" closely resemble, at first sight, drawings or photographs cut out of some fabric or other, sometimes even showing marks suggestive of folds in paper. When it is added that some of the photographed heads bear an unmistakable resemblance to portraits which appeared at different times on the front page of *Le Miroir*, and that on one occasion the letters MIRO appeared on one of the phenomena, the sceptic will at once think that the whole question is settled. But he will be wrong; for the troublesome thing about this case is that, just when one thinks one has really got to the root of the mystery, one lights on some detail which completely upsets the comforting theory of fraud which one was building up. In this case, for instance, the trouble is that, although the heads in question *resemble* the *Miroir* portraits, they are found, on close examination, *not* to be identical with them, and, further, to differ from them in certain respects which cannot be accounted for by any process of "retouching" or "painting over." Perhaps the most telling point of all is that when actual *Miroir* portraits were photographed for purposes of comparison the pattern due to the half-tone block used for reproducing the portraits was visible, whereas *no such marking could be detected* in the original photographs of the "materialised" phenomena. It seems fairly clear then that these phenomena, however much they may resemble *Miroir* portraits in certain respects, are not actual sheets torn from the *Miroir* and exhibited, or even photographic reproductions of them.

Space does not permit me to discuss in detail all the other interesting and puzzling features of the case, but the above should suffice to indicate how great are the difficulties which beset any honest critic who attempts to attribute the phenomena to fraud.

It is, however, necessary to touch briefly on the most plausible theory of fraud which has yet been put forward, namely, that the phenomena are produced by regurgitation. It is known that certain persons possess the power of swallowing objects and bringing them up again from their stomachs at will, and Brown-Sequard found, in the course of experiments on digestion, that it is not so difficult to acquire this faculty as might be supposed.

It has been suggested that "Eva C." prepares drawings or photographs on some material such as gold-beaters' skin, silk, chiffon, paper or the like, rolls them up, swallows them, and having thus evaded all searching, regurgitates them during the séance, unfolds and displays them, and finally swallows them again. This hypothesis accounts for some of the facts—*e.g.*, that searching has invariably failed to bring to light any object secreted about the medium's person—and accords well with the observation that the phenomena commonly appear to emanate from her mouth.

My own first-hand experience of the case is limited to some six sittings

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which I attended during "Eva's" recent visit to London under the auspices of the Society for Psychical Research. Of the phenomena I then observed, all except one were, in my opinion, of a nature which *might* have been produced by regurgitation, although it was not very easy to suppose that they actually were, and the one exception was complicated by other factors. I am confident that, under the conditions which then obtained, regurgitation was the only possible means by which the effects observed could have been fraudulently produced.

But these were quite small phenomena, and if I had, under the same conditions of search and control, observed one of the many very large ones reported by Baron von Schrenck-Notzing, I should have been compelled to acknowledge it as undeniably genuine and "supernormal." One really cannot credit "Eva" with the power of regurgitating something the size of a dressing-gown!

Baron von Schrenck-Notzing describes very rigid methods of control, even extending to the application of an emetic immediately after a fruitful séance. This question of control, of course, is the crux of the whole matter. The only loophole for the sceptic seems to be to suppose that when the searching and control are carried out in such a way as definitely to preclude the introduction of comparatively large objects into the séance room, the medium falls back on regurgitating small objects, and that it is only when, for some reason or other, the search is faulty that the large phenomena are produced.

But this again involves many difficulties. In the first place it presupposes a remarkable ineptitude on the part of Baron von Schrenck-Notzing; in the second it fails to account for the differences between the *Miroir* portraits and the photographed phenomena; in the third one would expect that, when the search was so thorough as to force the medium to fall back on regurgitation, some large spurious "phenomenon" would have been discovered. *But this has never happened.* Nor are these difficulties wholly evaded by postulating complicity on the part of Mme. Bisson, the medium's patroness, who is invariably present, for she fully recognises the necessity of assuming such complicity and is always willing to take any practicable steps to deal with this possibility.

It will be understood that I have not attempted to give anything like a full account of the case or of the difficulties connected with its assessment. I can only hope to have shown that it is one of quite extraordinary interest and complexity and not lightly to be judged on a superficial inspection.

Most men possessed of any considerable acquaintance with the established facts of science will, I conceive, find it almost impossible to fit the idea of teleplastic materialisations into their present scheme of things. Nor would it be right to condemn this attitude as "mere *a priori* prejudice," as some enthusiasts will certainly do. After all, the ultimate test of any new theory or statement is whether it "fits in"—whether, that is to say, we do more violence to all that mass of coherent and co-ordinated experience, which determines our process of reasoning, by accepting the new concepts or by rejecting them. If it were not so we should be compelled to accept all statements supported by *any* positive

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evidence, however slight. In the last analysis it is always a question of whether it is more difficult to suppose that a thing is true or to suppose that it is not true. In this case I feel as acutely as anyone the difficulties of supposing these phenomena to be true—*i.e.*, genuine. But I hope I have shown that there are, at least, very great difficulties about supposing that they are *not* true—*i.e.*, that they are fraudulent.

Whatever may be the conclusions to which individual students may come, there can be no doubt that this book is of very exceptional interest and importance; it should be bought, read, and carefully studied by all who are interested in Psychical Research and wish to be properly acquainted with one of the most remarkable cases hitherto encountered.

W. WHATELY SMITH.

Instinct and the Unconscious. A Contribution to a Biological Theory of the Psycho-Neuroses. By W. H. R. RIVERS, M.D., D.Sc., LL.D., F.R.S. Pp. viii. + 252. (Cambridge: at the University Press, 1920, 16s. net.)

This is a very notable book. Written by a master mind in the domain of psycho-biology (if one may coin such a term), it presents us with a closely-knit and highly original theory on a subject which has too often been characterised by loose generalisations, second-hand views, unsubstantial metaphor, and the prejudice of the partisan. Dr. Rivers's originality shows more in the detailed working out of his theory than in its final form. In general terms he states it as follows: "Psycho-neurosis depends essentially upon the abnormal activity of processes which do not ordinarily enter into consciousness, and the special aim of this book is to consider the general biological function of the process by which experience passes into the region of the unconscious. . . . The main function of psycho-neurosis is the solution of a conflict between opposed and incompatible principles of mental activity. Instinctive processes and tendencies, and experiences associated therewith, pass into the unconscious whenever the incompatibility passes certain limits." His view is thus a variant of Sigmund Freud's general theory, but the divergences in detail are many. With Freud he believes not merely in the existence of unconscious experience but in its activity, or capacity for activity, while in this unconscious state; and just as Freud distinguishes the unconscious from the merely preconscious, so Rivers limits the term "unconscious" to "such experience as is not capable of being brought into the field of consciousness by any of the ordinary processes of memory or association, but can only be recalled under certain special conditions, such as sleep, hypnotism, the method of free association, and certain pathological states." But when he proceeds to consider the process by which experience becomes unconscious he uses terminology in the exactly converse sense to that of Freud. He calls this process—a process which in the majority of cases takes place without conscious effort and "unwittingly"—"suppression," and reserves the term "repression" for a voluntary and witting process. These terms correspond closely to Freud's "repression" (*Verdrängung.*

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and "suppression" (*Unterdrückung*), respectively. In the English language suppression is a stronger term than repression, and this supports Rivers's use of the words, but it is unfortunate that they have already become technical terms in the reverse sense in English translations of Freudian literature.

It is in his endeavour to explain the process of suppression that Rivers takes an original line. Turning from psychology to physiology and neurology, he finds in the work of Head and his coadjutors upon peripheral sensory nerves the starting-point of a more widely-reaching theory. In the distinction of epicritic and protopathic sensibility he sees evidence of "two widely different stages in the evolution of cutaneous sensibility." He notes that when epicritic sensibility returns (in the divided-nerve experiment), "the earlier protopathic sensibility does not persist unaltered side by side with the later development, but undergoes certain definite modifications. Some of its elements persist and combine with elements of the epicritic stage to form features of normal cutaneous sensibility." Such is the case with heat, cold, and touch. This is called "fusion." But in this fusion, or blending, certain characters may disappear completely, as, for example, the two characters of radiation and distant reference which are among the spatial attributes of protopathic sensibility. This may be called "suppression." Rivers is careful to point out that these examples of suppression, "though they become manifest through the changes in consciousness we call sensations . . . are nevertheless the expression of purely physiological processes in the peripheral nervous system." But he points out that a similar relation has been found by Head to hold good between the functions of the cerebral cortex and the optic thalamus, and he develops his argument to show that "the process of suppression by which elements of conscious experience pass into the 'unconscious' is of the same order as the suppression which takes place on the sensori-motor and reflex levels." Using the terms epicritic and protopathic in a general sense, he gives them the connotation "graduation of experience" and "all-or-none activity" respectively, and finds this contrast present in the relation between intelligence and certain forms of instinct. This contrast dominates the rest of his theorising. He admits that the instinctive behaviour of insects is epicritic rather than protopathic, since it is not subject to the "all-or-none" principle but is capable of graduation in relation to the conditions which call it forth. Turning to what he calls the danger-instincts in man, he finds the "all-or-none" principle at work in several of them, especially in the reaction of immobility. Here there must be complete suppression of the other great fundamental reaction to danger, *viz.*, flight.

As the argument develops, and the nature of dissociation, of suggestion, and of hypnotism are set out and discussed, positions are taken up which the author will undoubtedly be called upon to defend by further argument. He restricts the term dissociation to cases of "alternate consciousness"; he uses suggestion widely, "as a comprehensive term for the whole process whereby one mind acts upon another unwittingly," putting it side by side with suppression as one of the processes of instinct; he brings hypnotism into close relation with the instinct of immobility; and he regards

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both suggestion and hypnotism as important manifestations of the gregarious instinct. In his theory of hysteria he excludes dissociation from its connotation, although admitting its close relation to hypnotism. He regards it as a product of the two processes of suppression and suggestion, and as primarily due to the activity of a danger-instinct. The symptoms of hysteria are due to the substitution, in an imperfect form, of an ancient instinctive reaction (instinct of immobility) in place of other forms of reaction to danger. He would therefore call hysteria a "substitution-neurosis," in contrast to Freud's term "conversion-neurosis."

The reviewer must admit that he is entirely unconvinced by the writer's arguments on every one of these heads, but each problem would need an article to itself for even the minimum of discussion. But perhaps enough has been said to show the great originality of the book and its challenge to thought. It is the most important constructive treatment of the problem of psycho-neurosis since the publication of Freud's classical works on the subject.

WILLIAM BROWN.

The Elements of Practical Psycho-analysis. By PAUL BOUSFIELD, M.R.C.S., L.R.C.P., etc. Pp. xii. + 276. (Kegan Paul, 10s. 6d.)

Every serious student of Psychical Research should include some knowledge of Psycho-analytic methods and discoveries in his armoury of technical weapons. In order to do this he must either embark on a lengthy study of original authorities or else resort to some condensed version of their work. The former procedure is not only very laborious and, for most people, unnecessarily detailed, but is apt to lead to definitely erroneous conceptions unless it is supervised by an experienced instructor or backed by considerable psychological knowledge.

Those who wish to gain a sound general impression of the subject without going too deeply into details of psychological mechanisms which are, in many cases, still the subject of controversy, can scarcely do better than read Dr. Bousfield's book, which is more than usually successful in its object of giving a concise and simple account of the principal methods and results of Psycho-analytic research.

The book contains, in addition, two features of especial interest to students of Psychical Research. The first is the author's unhesitating acceptance of Telepathy as a *vera causa* and his view that certain types of dream are due to its operation. Psycho-analysts are, of necessity, so well acquainted with the normal mechanisms of dream activity that they very reasonably show more hesitation than other people in accepting apparently telepathic cases at their face value. Dr. Bousfield's opinion is, therefore, particularly noteworthy.

The other feature is the account of a case of "compulsion neurosis" which possessed many of the superficial features of "mediumship." Among other symptoms, the patient wrote automatically, heard "voices" and was convinced that she was in touch with "spirits" who wished to communicate through her. The origin of these symptoms was discovered by analysis and a complete cure effected in the course of some two months.

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These cases of "pseudo-mediumship" are instructive both on account of the light they may throw on the probable psychology of fully developed mediumistic conditions and also as a warning to those who uncritically attribute all automatic speech or writing to supernormal sources. We hear too much of "the dangers of Spiritualism" from those who know nothing of psychopathology, but it cannot be denied that a more widespread knowledge of cases of this kind would have a salutary effect in certain quarters, and might save many people from being unduly influenced by their own worthless automatisms.

W.W.S.

The Church and Psychical Research. By GEORGE E. WRIGHT. Pp. 147. (Kegan Paul, 3s. 6d.)

The recent Lambeth Conference showed a far more sympathetic attitude towards Psychical Research than has previously characterised the official pronouncements of the Church. This is a hopeful sign, and it is very desirable that a still closer *rapprochement* should be promoted. For as Mr. Wright says: "The Church ought to regard this research, not in a spirit of hostility, not even with indifference, but should welcome it as an ally and recognise it as a helper, albeit a humble one, in her mission of bringing mankind to that light which shineth more and more unto the perfect day." That this is not the present state of affairs should not be charged wholly against the Church. One cannot reasonably expect overworked clergy to possess a detailed knowledge of the voluminous *Proceedings* of the S.P.R., and they would be more than human if they were not repelled or—worse—*bored* by the outpourings of the more extreme protagonists of Spiritualism. Propaganda should consist of accurate information and rational argument in a concise, accessible, and easily assimilated form.

Mr. Wright's book is a thoroughly sound piece of work which conforms to this description in every particular. He definitely belongs to the select and all too small class of sane and well-informed writers on the subject. His account of the evidence for survival is good and shows a proper appreciation of the relative values of different types of evidential matter, while his treatment of controversial matters is marked by a sincerity and moderation which can scarcely fail to enlist the sympathy of those to whom the book is primarily addressed.

It can be cordially commended to all—whether clergy or laity—who are anxious to "get at the rights" of the matter, who distrust extremists and prefer sense to sensations.

W.W.S.

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THE PSYCHIC RESEARCH QUARTERLY

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EDITORIAL

THE FUTURE OF THE *PSYCHIC RESEARCH QUARTERLY*

WE take this opportunity of informing our readers that we have decided greatly to enlarge the scope of the *Psychic Research Quarterly* and to transform it, as from the next number, into a general Psychological Review under the title of *Psyche*.

Our experience of the last year has shown us that there are very many people who are keenly alive to the importance of the manifold applications of modern psychology and feel the lack of a periodical which shall enable them to keep abreast of these subjects without undue expenditure of time and energy.

Psychology was at one time regarded as an abstract and academic subject which could have no bearing on the practical affairs of everyday life, and there still survive a few uninstructed persons who cannot understand that intangible mental factors may be at least as important as the things they can point to and handle. But intelligent men and women of almost all professions are realising with increasing clearness that there are very few forms of human activity to which psychology cannot make helpful contributions.

Educationists, for example, are beginning to understand that the "cram and emetic" system is not necessarily the best way of developing immature minds. They are asking how the child's mind works, what sort of a thing it is, and whether traditional methods cannot be improved upon. It is only the psychologist who can tell them.

Medical men are finding that what goes on inside a man's head may have just as much to do with his general health as what goes on inside his stomach, and are no longer content to dismiss everything they do not understand with a comprehensive diagnosis of "nerves". They have seen and heard a good deal of war neuroses and are beginning to

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ask whether analogous psychic mechanisms may not be responsible for all kinds of obstinate maladies in civil life. They especially desire a sane exposition of psycho-analytic doctrines in terms which bear some relation to their previous knowledge.

The laity, also, are much intrigued by the smatterings of psycho-analysis which they have picked up from the mass of assorted verbiage which has recently been decanted upon them. Some of them have realised that although there is obviously "something in it," the great proportion of accessibly published matter is unreliable, if not actively pernicious: but for the most part the public is either repelled, puzzled, or definitely misled, and there is an urgent need for the dissemination of sound views as an antidote to the sensationalism of the popular press.

Ministers of religion of all denominations are seeking new ways of appealing to modern men and women and new modes of presenting their doctrines so as to be in conformity with the demands of recent thought. They are realising more and more that when they talk about the "soul" they are referring to much the same thing as does the psychologist when he talks about the "mind." The inevitable corollary is that every minister of religion should be first and foremost a psychologist—a consummation devoutly to be wished but likely to be long delayed. Meantime it is already evident that psychology is the very last subject which the churches can afford to ignore.

Psychology also has valuable contributions to make to the practice of the Law, most obviously, perhaps, in the matter of criminal responsibility and insanity. The reliability of witnesses is another very important problem which is in some measure amenable to experimental investigation in order to ascertain how far an honest witness is capable of giving an accurate and detailed account of the occurrences he observes. There seems, also, some reason to believe that lying may be capable of positive detection by suitable methods or, at least, that a study of deception may enable us to recognise its outward insignia with greater certainty. Finally we may refer to certain experiments of Dr. Jung and others which suggest that criminal guilt may be capable of actual demonstration by appropriate means.

It is well known that the application of psychology to industry has already yielded most valuable results in the elimination of unnecessary fatigue and in facilitating the placing of "round pegs in round holes." Employers and employees alike are beginning to agree that, whatever else may be in dispute, it is unquestionably foolish to spread two hours over a job of work and get tired in doing it, if it is possible to do that job in one hour and get less tired. Signs are not lacking that before long psychology will play a very large part indeed in the amelioration of working conditions and the promotion of all-round efficiency.

Psychology enters largely—or at least should do so—into the field of Æsthetics. The general question of why some things are beautiful

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and others not is one which must ultimately be answered in psychological terms. As a specific example, it has recently been shown that the problems of colour harmony cannot possibly be dealt with merely by talking about wave-lengths and amplitudes as does the physicist, while any discussion of symbolism in art, of rhythm and its effects, or of the artistic temperament and its development, must at once involve the consideration of mental factors.

Perhaps one of the most important of all recent discoveries is that of the surprising extent to which the earliest impressions of childhood and infancy persist throughout life and profoundly modify the whole character and subsequent history of the individual concerned. This has been found to be true even although, indeed more especially when, these early experiences are wholly forgotten and quite inaccessible to consciousness. This discovery lays a fresh responsibility upon all parents, but it also gives them greater chances than any previous generation has possessed of ensuring their children the best possible start in life and the maximum chance of future happiness.

It would be easy to multiply examples, but enough has been said to show how varied and how full of interest are the subjects to which modern psychology contributes. But although those who work in the above-mentioned fields are recognising how important this contribution is, they seldom have either the time or the special training necessary to enable them to extract the information they need from technical publications. The latter are deficient neither in number nor in excellence and we have no intention of competing with them. But the hard-worked general practitioner, lawyer, clergyman, employer or teacher cannot read and assimilate all the first-hand research work, or even all the books, published on the psychological aspects of his particular subject. We propose by means of concise and accurate summaries of recent work, by periodic surveys of the different fields, and by notices and reviews of books to enable him to keep abreast of what is being done and to ascertain without difficulty what to read in order to obtain more detailed information.

We shall pay particular attention to this last point by means of an exceptionally comprehensive Literary Section, in which every important book of a psychological nature will receive due notice, whether published in England or abroad. We shall also notice the more important contributions to the leading technical periodicals, so that our readers may feel sure that they will not miss hearing about any publication which they might profitably read *in extenso*. We believe that this feature will be unique among periodicals in the English language, and that it would alone suffice to make *Psyche* indispensable to all whose work brings them into contact with psychological thought.

So far we have said nothing about Psychical Research, but we hope that there is no need to assure our readers that this subject will be by

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no means neglected. We believe, in fact, that the cause of sane investigation will be considerably promoted by the changes which we have outlined above. We have always emphasised the necessity for a close alliance between psychologists and psychical researchers; we have insisted that many of the problems encountered by the latter can only be resolved by the application of purely psychological methods, and we further believe that psychical research can provide the psychologist, and especially the abnormal psychologist, with material for study as interesting, as illuminating, and as peculiarly his own as any which he can hope to find elsewhere.

We shall continue to press home this point of view upon all concerned, and we are confident that its general acceptance will be appreciably accelerated, with the most beneficent results for Psychical Research, by the enlargement of our scope and our consequently wider appeal.

[*Note.*—The price of *Psyche* will be 5s. net per issue, or post free 22s. per annum.]

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A SIGN FOR TO-DAY

By the Rev. Charles Drayton Thomas

We print below an article by the Rev. C. Drayton Thomas describing certain book and newspaper tests recently received by him. Tests of this kind are a comparatively recent development in Psychical Research and we believe them to be among the most interesting and important phenomena at present under investigation. It is clear that their value depends entirely on the reliability of the investigator's records; it is not only necessary that the reference quoted as having been given at the séance should be actually found in the *Times* of the following day, but also that the notes taken at the séance should be unambiguous.

It should be noted that Mr. Drayton Thomas took the very wise precaution of sending a copy of his notes to the Society for Psychical Research on the same day as the séance and *before the relevant copy of the* Times *appeared.*

Through the courtesy of the Society we have been able to compare Mr. Drayton Thomas's article with these original notes and can certify that the latter are wholly free from ambiguity. We have also checked the position of a number of the references in the *Times*, and are thus in a position to assure our readers that the remarkable correspondences here recorded are not in any way due to unconscious distortion of either the séance notes or the *Times* matter by Mr. Thomas.

[Ed., P.R.Q.]

"This shall be a sign unto you."

IN his intercourse with unseen intelligences man has to guard against the Scylla of credulity and the Charybdis of unbelief. Some who would steer the middle course are much perplexed as to the part played by imagination. One may even suppose that Saul of Tarsus during a sleepless night following his experience on the Damascus road would ask himself whether he might not have been the victim of a dizzy brain wearied by glare and heat of noonday travel. But he was not left to battle unaided with his questionings; the record tells of three signs given, one by voice and two by vision. These were addressed to his intelligence; should they come to pass he would be able to form a firm judgment as to the significance of his experience on the road. He was told that in Damascus directions would be given for future work; he saw in vision a man named Ananias coming to visit him, and this visitor was to restore the lost eyesight. Each of these signs was verified within a few hours. Hence Saul concluded that unquestionably he had been in touch with the spirit world and later experience confirmed the conviction. As a Jew, versed in Scripture, he would recollect that in earlier ages God had sought to convince the intelligence of his servants by giving them signs upon which to base a

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reasoned conviction that they were working out, in co-operation with unseen agents, a higher purpose than their own. The story of Peter and Cornelius provides similar illustration of what seems to have been a recognised method of appeal to man's reason when calling him to special enterprise or new ventures of faith.

Having given some years to Psychic Research I will endeavour to outline one of the many phenomena which seem to fall under the classification of "signs," inasmuch as they are an appeal to the reason and afford a broad basis for considered judgment as to their origin and significance. The credulity which accepts without evidence should have no place in research, as it certainly should have none in faith or religion. It seems more than probable that the comparative failure of the Churches to win the ear and confidence of men to-day is, in no small measure, owing to the restriction of "Christian evidences" to matters of ancient history and tradition, to the exclusion of present-day "signs" by which men may judge for themselves how willing are God's messengers in realms of existence above ours to co-operate with us for the extension of our knowledge concerning their state, for the guidance of our activities, and for a further revelation of the ways of God with men.

Having commenced as a Psychic Researcher and progressed to conclusions which justify the designation "Spiritualist," I may be permitted to use the language befitting those conclusions; but the evidence here outlined must stand on its own merit and is offered for the consideration of those to whom my personal conclusions would be of no interest.

My researches have been principally devoted to the higher type of trance intercourse, in which one's friends in spirit life transmit their thoughts, or even speak direct, through the lips of a psychic intermediary. The incidents recorded are selected from communications received through Mrs. Osborne Leonard, about whose earlier phenomena Sir Oliver Lodge has written in his book *Raymond*. Her powers have matured since then; also one's friends by regular practice are able to make better use of this means of intercourse. My father, who passed on in 1903, has spoken through her lips with increasing facility during the last three and a half years, in which period we have enjoyed seventy conversations of an average duration of two hours, and in which we range over many subjects and I learn of his present surroundings and occupations. Much of this is, of course, unverifiable, but it is a noteworthy characteristic of these talks that I invariably receive *tests* which can be verified afterwards and which prove the action of supernormal abilities and frequently also the identity of the communicator. Some of these have taken the form of "book-tests," a phenomenon about which the Society for Psychical Research is shortly issuing a detailed account. One illustration may suffice. It should

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be understood that references are frequently selected without any regard to their original context.

On September 3rd, 1920, books contained in a certain drawer were being described and I was asked to look at one standing third from the left end. From this eleven tests were given. Of these one failed entirely, while two were rather indefinite. Finally came the following:

> "In the middle of page 54 he felt that there was spoken of a matter which is subject of great controversy in the Press at the present moment. One word especially gives the clue to it. You have been reading about it in the last two or three days."

This book was Bernhardi's *Germany and the Next War*, sixth impression, popular edition, published by Edward Arnold, 1914. Exactly in the middle of this page occur the following words:

> ". . . when the hour for combat strikes and the decision to fight faces him . . ."

On the morning of this day the papers had announced the probable date of the commencement of the threatened coal strike, a subject to which much space had been given for some days previously. The word "strikes" was sufficiently arresting to provide an unmistakable clue.

> "A very little lower is a word which he thinks is not given as a proper name, and there may be a letter wrong, possibly a letter from the next word will need to be added; this will then make a proper name like one concerned in the controversy of which he has just spoken, a reference to a well-known name."

Almost at the bottom of this page are two words, "horror" is one, and immediately beneath it is "divine." If the first part of the former and the termination of the latter are united they result in the name Horne. The Government spokesman in this controversy with the miners was Sir R. Horne. Admitting some trifling inaccuracy in description, the general result is sufficiently close to require other explanation than that of coincidence, and taken in conjunction with the other tests from this book clearly indicate that knowledge thereof had been obtained.

Latterly the ability to extract ideas from books has been applied to other publications, including newspapers, and I receive assertions relating to matter which can be verified by inspection of the next day's issue of the paper from which the tests are selected. The following items from my note-books may indicate the general trend of this device and afford data upon which an opinion may be formed as to its significance. In order that the question of *bona fides* may be easily settled it is my invariable custom to post a copy of these notes to the

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Secretary of the Society for Psychical Research on my way home from Mrs. Leonard's and to hand another that same evening to a friend. Thus there are two people who are able to guarantee that the tests were written out before the next day's paper appeared. All the following were selected from the *Times;* trance utterances are placed within inverted commas and the verifications appended to each in turn. I commence with seven given consecutively on May 7th, 1920, at 6.20 p.m., and include failure with success.

> "In the *Times* for to-morrow look near the top of column two on the front page for reference to a neighbour living very close to you. Your father senses that there are two names together which would both refer to these neighbours. You will understand."

Four inches from the top of this column appears "Wood of 'Birdsgrove.'" A few doors from us reside our friends Mr. and Mrs. Bird. That there should appear these "two names together," suggesting a bird-frequented wood or grove, and thus closely associating with the surname in question, offers an interesting problem as to the nature of the activity above alluded to as "sensing."

> "Nearly half-way down this column is the name of a man at your Mission. But it struck your father that this name would also apply to someone whom he knew on earth years ago, although not to do with your family. It reminds him of it."

For some years I have been attached to the staff of the Leysian Mission, City Road, London, and among our oldest workers is a Mr. Mason, formerly resident in the Mission Hostel, and still closely identified with our Sunday-school and other activities. Within an inch of half-way down that column appears the name "Mason." My father knew a minister of this name forty years ago, and for some period we were on terms of unusual intimacy with members of his family.

> "In column one and about a quarter down is your father's name given in connection with a place he knew very well about twenty years ago."

Between a quarter and half-way down is the name "John" and one inch above it is "Birkdale." My father's name was John, and "Birkdale" is the name of the house he bought when retiring from active work and where he resided until his death.

> "Just underneath and very close is another place he knew. He sensed it was in the south of England, direct south, a good distance from London. He only lived there a short time; it was one of the places of his shortest residence."

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One inch below the above was "Southampton," and as father had lived at two places near that town I supposed this indefinite description might be intended to cover that locality. This being much too vague for evidence, I inquired at my next interview if he meant Southampton. The reply was given without hesitation: "Southampton was not right, Newport was what he intended." I replied that Newport was not mentioned in the paper, but on returning home discovered a quarter of an inch below "Birkdale" the name "Newbury." May we suppose that there was, to clairvoyant vision, sufficient similarity between "Newbury" and "Newport" to give rise to a mistake? For there followed an explanation of the difficulty of seeing clearly the actual words. Passing this as a failure, and taking no note of the subsequent introduction of "Newport," because this had been mentioned at previous sittings, there yet remains the assertion that one of my father's briefest residences had been at Newport. This is quite correct, as I found by reference to letters and documents dating from before my birth.

> "Lower in the column he saw, or rather sensed, a reference to Ramsgate or that locality. But quite close, within an inch of it, was the name of some people your mother will remember well as having been at Ramsgate. In fact she had a reminder of them quite lately from someone she met."

These three statements proved correct. At the bottom of the column was "Herne Bay," which is near Ramsgate and was occasionally connected with my father's work when he had a church at the latter place. In the same line and "within an inch of it" is seen the name "Joseph," which suggests the Rev. Joseph Silcox, a friend who after leaving Ramsgate presently settled at Herne Bay and died there. My mother has frequently met the family since then, and tells me that *twelve days* before this test was given she was hearing about them from their minister.

> "Another Ramsgate name is very close also, but this is a name of one still at Ramsgate and in whom your mother would be interested." Here I inquired whether I knew this person. The reply came, "Yes, mother told you about him."

On referring to the *Times* next day there was no doubt as to this name, although it had been moved to the top of the second column, presumably owing to a few late insertions after these tests were selected. This notice is headed "Preston" and is separated by three others from the foregoing. A gentleman of this name is still prominent in church and temperance work at Ramsgate and was well known to my father. My mother had been speaking to me about him exactly three weeks previously. It will be noted that the wording of the tests implies

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knowledge that while the "Joseph" family is no longer at Ramsgate, Mr. Preston still resides there.

> "Near the bottom of column one is your Christian name and also the name of Thomas quite close."

It was so. Three-quarters down column one and within four lines of each other appear "Thomas" and "The Rev. Charles." The general accuracy of position in the above tests deserves notice.

It will be inquired how much of the above was knowledge possessed by Mrs. Leonard? She was normally aware that we had lived at Ramsgate, and that I worked at the Leysian Mission. And during previous trances mention had been made of the names Silcox (in connection with Ramsgate), and Newport (as my mother's old home), also of Fred Bird (as a friend residing near me at Bromley). But even had Mrs. Leonard been possessed normally of all these items it is not easy to suggest how this could have made possible the above varied assertions relating to the morrow's Press and indicating familiarity with my father's earth memories. Six of these are items which Mrs. Leonard could not have known normally, and two of them were unknown to me.

I now pass to a similar series relating to a clergyman, when he accompanied me for the first time to Mrs. Leonard, and whose name was not mentioned there. He came with me because a few weeks earlier I had received messages of a fragmentary character purporting to come from his wife, and it seemed possible that in his presence something more might be forthcoming. The date was March 16th, 1920, and the time 2.48 p.m.

> "Near the top of column two, first page of to-morrow's *Times*, is the Christian name of the lady who comes with this gentleman."

Four inches from the top of the column was the name "Anne Maria." My friend told me during our return journey while we were discussing these tests that his wife's name was Annie Maria. Mrs. Leonard's control had more than once remarked upon the difficulty she experiences in distinguishing between Ann, Anne and Annie, as they sound or seem so much alike to her. I have noticed this difficulty with other mediums also.

> "Close to it is this gentleman's Christian name. These are close together, possibly within half an inch." Here I asked my father, "How do *you* know these names? I do not know them myself!" The control replied, "He did not know them, but this lady went with him to look them out. If correct she will go again and look out others. It makes a still better test when you do not know the names."

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Immediately following the above two names was "The Rev. Frederick." My friend's name is Frederic (without the "k"). These names appeared upon adjoining lines within half an inch as stated.

> "About one-third down column two is the name of a place at which this lady lived and which she liked."

Wishing to be in a position to examine these tests next day I asked during our return journey what towns would fulfil this assertion. The Rev. Frederic named two which would meet the test. One was the home of her childhood and the other Cambridge. He included the latter because, although his wife had not actually resided there, she had frequently stayed on long visits to her uncle, a University Professor, and was greatly attached to the place. One-quarter down this column appears "Cambridge."

These three tests so confirmed were accepted by my friend as indications that his wife was in touch with us. She had given her name and his in an unmistakable way, and named the place which he knew to be associated in her mind with most pleasant recollections. Many other evidences of her identity were given, both then and at a subsequent interview with Mrs. Leonard, but the above may suffice for our immediate purpose. They are certainly difficult to explain on any supposition other than that of communication from the spirit side of life. None of the facts could have been known to Mrs. Leonard, who saw my friend for the first time and did not hear his name.

I now proceed to an incident which still further rules out any hypothesis of telepathy from minds on earth. When commencing a conversation on March 26th, 1920, I explained to my father that owing to absence from home it would be impossible to keep my appointment for that day fortnight and that I should send a friend. I gave not the slightest clue as to who it would be, but had arranged to let a medical man have the interview and was hoping that he might get into communication with his brother. I was not a little surprised therefore when my father replied that he would be present and bring my friend's friend, with whom he had already attended one sitting. I understood the reference; fifteen months previously I had accompanied this doctor to a clairvoyant, and although nothing of interest transpired there, my father alluded to the occasion when next I spoke to him at Mrs. Leonard's and said that he had been present and noticed my friend's friend trying unsuccessfully to impress the clairvoyant with his thoughts. It would therefore seem that my purpose to send this doctor was already known to my father. By no normal means could Mrs. Leonard have been aware of it, and the telepathy theory can scarcely be invoked to explain what follows.

April 23rd, 1920, at 3 p.m.—The first set of tests given me on this date proved to be for my medical friend from his brother, who had

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successfully communicated with him through Mrs. Leonard since my previous visit.

> "The first set of tests are for your friend from his spirit communicator whose name is about half-way down the first column of the first page of the *Times* for to-morrow."

Exactly half-way down that column appears the name "Dyson," which is correct.

> "Very close to it is your friend's name or one almost similar."

Two and a half inches below "Dyson" is the name "St. Andrew's." Until receiving his comments upon these tests I had been unaware that his second name was Andrews. "Almost similar," the apostrophe makes the difference.

> "A little below, say three-quarters down, is the name of a place which they have visited together and much enjoyed."

Dr. Dyson on inspecting the paper found in this spot a mention of Filey, a place where he and his brother had frequently spent holidays together.

> "A little above is the name of a mutual friend of theirs."

He writes that almost immediately above the previous names appear "Jones" and "Davies," and that either of these might be the mutual friend.

> "Near the top of column one is the name of a great friend who has passed on and is with the spirit young man" (*i.e.*, the doctor's brother who had communicated at the previous sitting).

His letter continues: "The first notice at the top of column one contains the name 'Jack.' This must be Jack Nancarrow, he is absolutely the only great friend now passed over that I have. Moreover, in all the first half of column one there is no other name or surname whatever of any friend of mine."

Of all the above information I knew nothing save the friendship with Nancarrow and the name Dyson. Clearly, therefore, there had been no reading of my mind. Nor is it easy to see how, even had these facts been known to me, mind-reading could account for such piecing together and accurate selection from the *Times* as forms the peculiar feature of these tests. The information given for my two friends was as surprising to them as it was unexpected to me. It may be said of these newspaper-tests, as of the book-tests which preceded them, that they were introduced by intelligence other than our own and neither asked for nor anticipated by us. This type of "sign" reveals that complete remembrance of family and other names which we should

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expect our friends to retain, but which the limitations of ordinary trance mediumship afford them but little opportunity of demonstrating. They seem to me to overthrow the suggestion sometimes put orward of telepathy from the sitter's mind. Stretch that hypothesis as we may, it can hardly account for the selection and bringing together of old memories and the morrow's Press; nor does it explain the precise locating of names, and the assertion of connections between these and events unknown to the sitter; as when I was told that my mother had been recently reminded of the "Joseph" family.

Having previously shown that these tests are given at the time stated and copies handed to others before the next day's paper is issued, it remains to notice the inevitable suggestion that the facts can be explained by coincidence. Within nine months I received 150 tests such as the above; the failures were 25, and another 25 were insufficiently definite to be counted as quite successful. Who will take the trouble to compare the above tests with issues of the *Times* other than the days for which the tests were given? Such an experiment will be the best demonstration that coincidence has little or nothing to do with the above results. It is of course obvious that such names as Charles and John are almost assured of frequent mention in columns relating to births, marriages and deaths; coincidence is therefore likely unless their position is insisted on. But coincidence is rendered increasingly improbable when the test connects therewith a second and third item for fulfilment. Upon the theory of probabilities the occurrence of three or four stated names within an inch or so of each other in a designated part of a particular column is of likelihood so remote as to be almost negligible. Should this sort of grouping be verified time after time we become assured of something other than coincidence. Such groupings are repeatedly given correctly. One word respecting the apparently trivial nature of these items: Professor L. P. Jacks remarked in his paper, "The Theory of Survival in the Light of its Context" (see *Hibbert Journal* for July, 1917, p. 615), that there is required "evidence in detail, of which the most trivial may be the most important."

I have been asked if newspaper tests are an instance of foreseeing. It is not regarded as such by the intelligences who devise these tests. They say that having developed the adequate ability, they select words and topics which serve their immediate purpose and bring the information for transmission through the usual avenues of mediumship, and that their tests are always liable to failure through changes made at the editorial office subsequent to their scrutiny of the preparations for the morrow's Press.

What place do these "signs" take in the widespread endeavour of risen humanity to bring to our realisation the facts of continued existence beyond death, and our friends' knowledge of our doings?

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They are but one new device added to many previous endeavours to attract the attention of the thoughtful. Friends learn to assure their loved ones that they have not merely survived the transition men term death, but that they are rejoicing in new-found powers and widening opportunities of joy and service; students and teachers there seek to give to students and teachers still on earth, whose difficulties and needs they fully realise, such new facts and proofs as may serve both personal assurance and public instruction. It may well be that most who pass from earth are but little concerned with the possibilities of communicating with it, that they press onward to explore, to learn and to experience, or to undergo remedial discipline. But even as some of us are strongly drawn towards the study of intercommunication between earth and spirit life, so some in spirit life would seem to be drawn to the study of communication with earth, and, aware of the tremendous possibilities, intellectual, moral and religious, which a widespread conviction of the reality of life beyond death would bring, they accept this study as a mission. Many of them, like my father, were men of vital godliness and strong religious conviction who knew little about psychic studies, but based their assurance of life beyond upon the "signs" given ages back and recorded in Scripture, of which our Lord's return from death's other side was the supreme example. These will be among the first to realise that new generations need new "signs"; that textual criticism and Christian evidences leave the multitudes cold because the happenings were long ago and have been subject of much dispute among scholars. In the Churches there are many who know by interior conviction, a sort of "instinct of immortality" which is among the most real facts of life to those who have it, that they cannot die, but will pass onward to greater life from their dying body. Yet this conviction being subjective does not lend itself to demonstration demanded by the intellect of others. The state of the world and the decline of the Churches alike proclaim the absence of something needed by the age. It has seemed to many that the strongest evidence for the reality of man's spiritual nature and the value of the Christian revelation lay in the moral miracles of conversion from evil living to noble and self-sacrificing service. St. Paul knew the value of this evidence, and yet he it was who wrote that to the "signs and wonders" wrought so freely throughout his ministry were attributable under God his marked success in winning the Gentiles to obedience. (See Rom. xv. 18-19, II Cor. xii. 12. So also the writer of Heb. ii. 4.) Hence it is somewhat astonishing to hear Christian teachers conclude their condemnations of Spiritualism by telling their hearers that all we need is the faith of which St. Paul was so shining an example! Paul had received his "signs" and knew their value to faith, and he rejoiced that those among whom he ministered should be granted "signs" likewise.

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Of a time long past we read, "The word of the Lord was precious (rare) in those days"; this deficiency was partly met by the psychic and spiritual activities of Samuel the Seer. In our day also an identical need is being met by "signs" wrought in various ways and calling for reverent investigation in order that their significance may be clearly seen by the intellect and permitted to work their due result in our lives—personal, social, national and international. The spiritualising of daily life has been proved by multitudes to be a sure cure for various ills of mind and conduct. Is not the time ripe for an extension of this remedy to wider areas of need? Lowell's lines on "The Present Crisis" are perennially true:

"New occasions teach new duties; Time makes ancient good uncouth;
They must upward still, and onward, who would keep abreast of Truth;
Lo, before us gleam her camp-fires! we ourselves must Pilgrims be,
Launch our Mayflower, and steer boldly through the desperate winter sea,
Nor attempt the Future's portal with the Past's blood-rusted key."

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THE DISCOVERIES AT GLASTONBURY

By Fredk. Bligh Bond

IT was in 1908 that the foundations of the Chapel of King Edgar were discovered and their greater part laid bare. Some incredulity was not unnaturally displayed at the time by antiquaries of the school of Sir Wm. St. John Hope, who had in 1904 decided finally against the theory of any possible extension of the Abbey buildings to the east of the standing fragments of the retro-quire. His view, based as it was upon excavations specially made by him on behalf of the Royal Archæological Institute, held the field in the opinion of most of those who had studied the subject.

The principal alternative view was that of Professor Willis, who, in his published plan, suggested a centrally-placed chapel in a row of five at the extreme east, and he gave this a hypothetical extension of about 12 feet. In so doing he was probably influenced by a statement of Hearne's which would place this chapel at the east end of the quire.

There was another old document bearing upon the total length of the Abbey which had been duly consulted by Willis and others, but, owing to an apparent absurdity in it, this document had been set aside, and its real implication unnoticed. This was the transcript of a report made to Queen Elizabeth by the Commissioner whom she had sent to Glastonbury to give an account of the buildings there. The Commissioner, in tabling a series of lengths making up the total of the whole church, began thus: "The Chapter-house, 90 feet long."

At the close of the year 1908, when the greater part of the Edgar Chapel had been laid bare, it became necessary for the writer to frame his annual report for publication in the *Proceedings* of the Somerset Archæological Society. Only 72 feet out of the Commissioner's 90 were visible, and the foundations were apparently complete.

But the discovery of so large a chapel made it possible to offer to the public a new suggestion, namely that the Commissioner had really seen a building standing at this point, 90 feet in length, and that he had miscalled this "the Chapter-house" in ignorance of its real nature.

Now this suggestion had arisen solely as a result of communications received in automatic writings obtained in 1907, six months or more before the discovery of the chapel. The source could scarcely have

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been stated in the pages of an archæological report. The writer had to base his assumption of a further extension still to be found beyond the 72 feet upon the inherent merits of his new interpretation of the Commissioner's words. The public were first apprised of the story of the automatic writings some nine years later, when in 1918 he gave it in full in the "Gate of Remembrance."

The suggestion of a 90-feet Edgar Chapel can be explained as a product of the working of the intuitive mind of the automatist, Mr. John Alleyne, aided perhaps by some degree of telepathy from the mind of the writer who sat with him. It may easily be classed as one of those conclusions which would tend to form themselves inarticulately in the mind after the weighing of all the evidence derived from the study of available data of knowledge. These conclusions would not normally emerge in a clear form on account of the contradictory nature of that evidence, comprising as it did all the conflicting opinions of antiquaries, much hearsay tradition, and very little tangible fact.

So far, then, as this particular statement in the script is concerned, it would seem unnecessary to put forward the hypothesis of a "greater memory," or a knowledge beyond that which the writer and his friend might normally command, and which they might conceivably arrive at by deductive process. Many impressions of a nature similar to this arise in the mind from a subconscious source, but never succeed in finding expression and perish still-born. Others remain in a stage of vague intuition and do not take on any concrete body of thought. There is, however, latent in all of us a power of mental alchemy that can collate facts and impressions and can distil from them essential conclusions, even as a chemist, by the relative proportioning of the ingredients placed in his retort, can procure the reaction he desires — a reaction whose nature is determined by the minute accuracy of his quantities. In the case of the Edgar Chapel, the writer, even before the coming of the script, had inclined intuitively to the theory of Willis, which favoured a 12-feet Chapel of King Edgar at the extreme east of the church. The writing gave substance and detail to this subconscious tendency. It must be affirmed, then, that in regard to the statement in question the action of the subconscious mind was an important factor in the evolution of the script. We now proceed to another order of communication.

The Polygonal Apse and the 72 Feet Chapel

The Chapel, as excavated in 1908, was perfect in form, having an eastward termination consisting of a solid wall and "return" buttresses attached on the eastern face. Beyond this, we were confronted by a high bank of clay, in which no mark appeared to indicate a further prolongation of the building. I have no hesitation in saying that any

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antiquary who might have excavated this Chapel in the ordinary way would have ceased work at this point, well satisfied with the fulfilment of his quest, save only that the length of the Chapel did not tally with the 90 feet spoken of by the Commissioner as being the length of the "Chapter-house." And I am not sure that this record would have had any weight, as all the Commissioner's measures are excessive. But the script had mentioned "walls at an angle," and these had not appeared. These walls were apparently to be looked for further east, and the emphasis laid upon them undoubtedly strengthened in my mind the impression—nay, conviction—that some special importance was to be attached to their discovery. Now the veridical nature of the script had been proved not only by the revelation of so large a building as we had already found, but by the extraordinary coincidence of its measure of length—71 feet 6 inches—with that stated in one of the scripts received on February 19th, 1908 (months before the beginning of excavation), in which it was said that the length of the "chamber" was 70 feet in four bays. And again on June 16th, in a communication signed "Beere. Abbas," we read: "We laid down seventy and two, but they builded longer."

I was so much impressed by these coincidences that I decided to secure the publication, in advance of further discovery, of a plan that should exhibit the longer building with its "walls at an angle," and I accordingly showed this in the form of a polygonal apse, and the plan was published, not only in the *Proceedings* of the Somerset Archæological Society for 1908, but also in the Christmas number of the *Treasury* for that year.

Now the point to be noted is this, that there were no records either in document or tradition available to us which could even remotely have suggested a preliminary length of 72 feet, or a chapel of four bays. And the only conceivable source of an impression of "walls at an angle"—the meaning of which was not explained in the script—would be Phelps's outline of a former "lady-chapel" behind the quire, which shows a circular apse. An acute reasoner might surmise that a circular form would be impossible in a mediæval building, and it is just possible that he might make a guess that Phelps recorded the tradition of an apse, but had to put it in conjecturally and without architectural knowledge. But the idea had not penetrated the minds of any modern antiquary, and was most unlikely to find a lodgment in ours. We may allow that the subtle alchemy of the mind might retain some such impression in its subconscious depths. But what shall we say of the suggestion of a 72-feet length for Beere's chapel? Here we seem right outside the scope of any possible personal impressions, and unless we are content with the utterly improbable idea of chance coincidence, we must frame some psychological theory to cover it.

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The "Greater Memory"

I have launched the theory of a "greater memory" tentatively as a guide and suggestion to readers of the "Gate of Remembrance." It is a theory which needs a great deal of filling out; a skeleton suggestion which has to be clothed. It will be far easier to some minds to accept at once the belief that the originator of the plan, Abbot Richard Bere, has himself been with us in spirit and has directed us in the search. There is an appealing simplicity and directness about the view that is not without its attraction. But it does not explain many other features in the script, and such a view is in many ways inadequate and merely covers difficulties instead of meeting them. It depends, in fact, upon innumerable assumptions, and would leave us the beneficiaries of a chance phenomenon.

Far removed from the "spiritualist" view is that of a great reservoir of all knowledge past and present, subsisting always in some sphere of supra-conscious life and thought, and capable of being drawn upon by human thought when in rare instances it becomes attuned and responsive. This sphere of knowledge is cosmic in its scope and eternal in its duration. It is the abode of the "Gnosis" or Divine gift of spiritual intelligence. In another aspect it is the repository of human memories.

But to attribute such writings as we received, with all their wealth of detail having the mark of personal memory and individual experience, to a seemingly impersonal source, is manifestly unsatisfying, conveying on the one hand a sense of coldness well-nigh intolerable, and on the other leaving unexplained that living sense of personality which so markedly pervades the writings.

Most repulsive is the idea of a sort of soulless gramophone record with which we, as it were, automatically come into touch by the action of sustained thinking and study of a particular subject. Vibrations of ætheric or mental substance may explain a good deal of the mechanism of such communications, but what we are seeking is the vital element, the motive agency, and this is not apparent in any doctrine of vibratory responses.

Yet other views are possible. There is that of the "Genius loci"—the presence of a spiritual entity peculiar to the place: an entity built in this case of the thoughts, schemes, and aspirations of innumerable individuals focussed and concentrated about the group of religious ideals developed through long ages on this sacred spot. The script itself is in places strongly impregnated with a notion nearly akin to this. And it is from the internal evidence of the script itself that we may hope to glean impressions of its probable source.

We want a theory which will cover all the facts. Psychical phenomena have been studied under various heads, but, however

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diverse, we must believe them all to be correlated under some psycho-physical law, the nature of which we cannot yet divine. The Glastonbury scripts abound in suggestions of such a law. They exhibit a tendency to synthesis of operation in various modes between the Seen and the Unseen, and tend to a showing of the ultimate centralisation of all phenomena of Mind in one unique and yet infinitely differentiated Intelligence.

The scripts give us a comprehensive story of the old Abbey and its various builders. This is put into the mouths of many persons, and is couched in language more or less consonant with the mediæval setting of the theme. Sometimes these persons claim to speak for themselves. At other times they are spoken for. Sometimes it is "Johannes would say," or "Aufwold the Saxon hath tried, but he knows not the tongue"; and again we get that interesting review of the parts played by the various actors (see p. 93, "Gate of Remembrance"), in which we are told by those who sign themselves "The Watchers" that those who were in the Abbey in olden times are passed and gone to other fields, and that "they remember not, save when the love of Johannes compels their mind to some memory before forgotten. Then through his soul do they dimly speak, and Johannes, who understands not, is the link that binds you to them."

Through all the story we seem to see the guiding hand of a directive Intelligence setting the parts and giving the cues for the entrance of the several personalities, or interpreting their mind for us. This directive Intelligence is one in aim, and yet a multitude innumerable—"The Watchers," "The Company," "The Controllers" are some of the titles chosen for their identification. They speak with corporate voice. Yet they proclaim themselves in very truth individuals, each with his own bent and his own idiosyncrasies. They say that Personality, in the sense of character in the æthereal sphere which is their dwelling-place, is stronger and more marked than here. Difficulties of communication may make it appear feeble or attenuated, but the individual character is more perfectly developed and realised there than we on our side can conceive. There is a very beautiful passage in one of the later unpublished scripts which I would quote here. It reconciles the fancied opposition between the "personal" and "cosmic" views of the writings and shows each to be but a partial expression of a single truth; the whole satisfying equally the heart and the intellect. "The Watchers" say as follows:

> "Is it not clear and patent to you now that there is a great Cloud of Witnesses who dwell beyond your ken and yet in your midst, as raindrops in in all-pervading ocean of Spirit: not absorbed in Nirvana as the Esoterics assert nor lost to a sense of personality and individuality, but actual individual drops, each surrounded if we may so express it, by his envelope of Added Experience,—the experience gained in this earth-life;—a many-coloured rainbow covering of all that we as individuals have known and undergone.

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Though a great multitude, still we are one in the great ocean of the æther, foregathering and condensing in the atmosphere and envelope of the world we have left behind, as consistent and rational Personalities, each following his own courses and his own bent and yet able by reason of our attenuation to enter with you into a common knowledge and appreciation of that vast storehouse of Experience which through long æons has accumulated;—that great Book of Life that is the scroll of the Finite and Material, and which is endless and eternal by reason of its inspiration and sustaining Principle, the inward soul and spirit of God's own Essence from which we have woven our garment and which we by the nature of that garment may glorify or disgrace. For, in brief, this reservoir of all knowledge past and present is vibrant and pulsating with a hundred billion lives in the ætheric sphere, and is yet by affinity united with yourselves upon the earth."

It is a remarkable synthesis of views hitherto considered to be divergent. The orthodox Churchman may see in it a new and more vivid exposition of his belief in the Communion of Saints: the spiritualist will embrace the hope it holds out of making this communion a human and satisfying one, giving the warmth of a genuine survival of personality and an assurance of the continued interest of the departed in the dwellers upon earth. The seeker for knowledge will note the promise of the perpetuation of all the achievements of the human mind in the great record of the past, and its availability to Man embodied as well as disembodied: and the esoterist will welcome the more adequate and genuine interpretation of Nirvana not as absorption into the undifferentiated Essence of the Deity, but as Union in the Divine Life with all the fruits of differentiation accruing to the individual through his experience in Matter.

The path to the fuller communion between the embodied and the disembodied is emphatically stated to be an inward one and to be discovered only by the awakening of the higher faculties of the soul. To this end the intuitive principle of consciousness must ally itself with the intellect and must vitalise the intellect by imparting to it a new function. Phenomenal spiritualism is admitted as a fact, but a fact of no spiritual significance. There are human intelligences earthbound by reason of their continuing attraction to mundane interests. There are others held in like bondage through sudden or premature death of the body. With these we are able for a while to commune after a fashion, but the link is one of earth-affections and is normally bound to fade out as the soul relinquishes its earth-affinities. Such a communion they give us to understand is not the true congress of souls. This is of a permanent order and subsists wherever sympathy of thought and feelings may be present. Consequently any well-formulated and persevering effort towards the acquisition of a higher degree of knowledge on the part of men is infallibly bound to find a sympathetic response from the region of "The Watchers," and the thinker will feel the stimulus of an unseen reinforcement of his thought. The more earnest and disinterested the impulse actuating the thinker, the readier and fuller will be the response.

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"We in very truth," they say, "speak as spirit to spirit, and only in so far as your spirit is attuned to an unselfish desire for knowledge to be applied to good ends. And even thus, we penetrating in, it is carried of yourselves by channels which, though tried and beaten paths to us, are yet unknown, or at least unappreciated by, the limitations of your human consciousness. We, by these tried and unknown paths, can only convey to you that germ of the subliminal knowledge from which, in God's good time, the great Tree of Comprehension shall arise, piercing the empyrean with its myriad branches, and absorbing in every pore that consciousness of spiritual immanence which shall in course of time culminate in Existence in Two Spheres—even as the tree on which we hang the allegory exists by virtue of its green and sun-kissed raiment in contrast with its dark and devious roots hidden beneath the dark soil of Matter."

To this script is appended a remarkable subscript or signature. It is as follows:

"We who are known to you in the councils of the Watchers in the radiant sphere of liberated human Memory and Spirit thus write in the responsive vibrations of your own awakened Spirit."

Here we have a sufficiently clear intimation that the vehicle which is being employed by these Intelligencies is not primarily the hand, or even the brain, of the automatist. It is that larger supraliminal part of us that is stimulated, though unknown, it may be, to our waking personalities, and is made to move in unison with the thought and emotional impulse of those spiritual personalities who seek to impress us.

And such success as we may obtain in this quest is due to the discipline of a dominant motive which is sufficiently removed from the narrower personal sort to engage the sympathies of the greater self and ensure his co-operation. If this is so, the whole matter is lifted away from the ordinary arena of phenomenal spiritualism, and the automatism becomes a supraliminal act of the writer, aided by sympathetic action from a yet greater entity that is the Genius of the place—a spirit builded of a myriad immortal memories and vital with the force of a vast union of individual will and intelligence.

Alas that our human limitations render this communion so difficult and precarious! Not only is it a task of great difficulty to put into human language the truth concerning those higher states to which our spiritual evolution ever points, but the material consciousness has not yet developed that degree of responsiveness which alone can ensure the reception of the whispers of the spirit. Here is a passage, culled from a script of December 15th, 1919, which enlightens us as to the nature of the conditions under which alone communication of a truly spiritual nature is possible. They say:

"The impossible task which at present confronts us is to convey to you our meaning in the absence, as yet, of any common platform of consciousness upon which we may meet to discuss these matters so patent to ourselves and so remote from your thought. You can at present only associate with us under conditions representing an arrested consciousness of your own physical

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environment: that is to say, we can only converse with you when you are in a state of Dream, Trance, or Meditation; and that which we are able to convey when you are in such states, we, by an effort of will, impel in spirit into your material consciousness by that Fourth Channel [1] of which we speak.

"Hence, at present, anything like complete correspondence is exceedingly difficult, and naturally so. Yet, as we have said, there is now an increasing development of the human intellect in a spiritual direction which—(and we would lay especial emphasis upon this statement)—is rapidly clearing the way for the coming of that higher and more spiritual mode of consciousness which will be the lever that is destined to lift the earth itself to the spiritual sphere."

It is "The Watchers" who speak, and we must distinguish them from those who represent the "Genius Loci" of Glastonbury, where the Abbey and its memories are the subject of the writings.

There is an "æonial" life of Glastonbury, and it is imbued with the ideals for which the builders strove, and which they have not yet succeeded in expressing in their perfection. This is "The Company," and it is a vast timeless organisation of souls sympathetic to these ideals:

"Those who would tell you of the glory of our house all strive together, Saxon, Norman, and Native, so which wold ye have—Norman base or later abbey?"

And Johannes Bryant, a soul earth-bound by reason of his love for his House, enmeshed in the garment of earth-memories, was able for that reason to be their ready spokesman. Their own memories, attenuated and sublimed, could not otherwise impress themselves upon our coarser mental fibre.

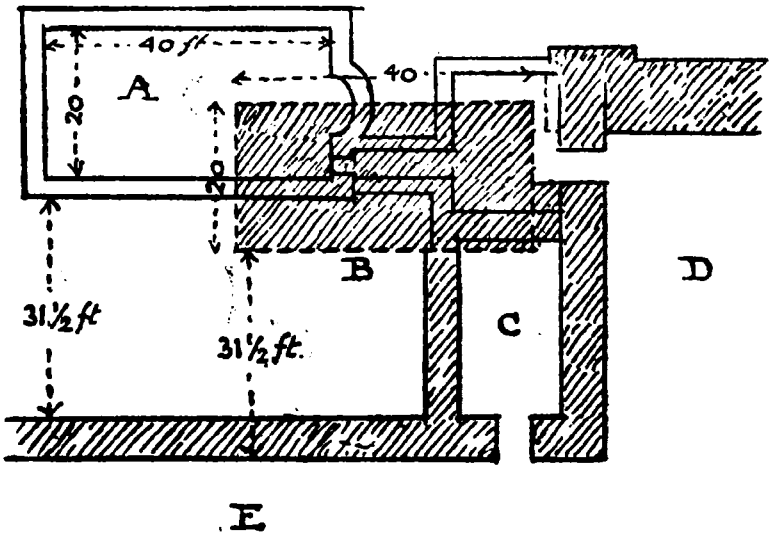
"The Company" would see the ancient glories of Glastonbury revived; but beyond and above these interests are "The Watchers," whose outlook comprehends the ordering of that greater structure of human society of which the architecture of a church is a humble symbol. Their vision sweeps the future, and they try to depict for us the promise of a new and better ordering of society in which Man will at last definitely set his foot on the ascending path towards a goal of transcendent promise and beauty and the way will be prepared for the birth of the Divine Being in the body of the Race.

They speak words of encouragement and of hope to those engaged in the great conflict with Matter and its powers, saying that even now we are seeing the dawn of a new era in which the scourge of war as a destructive agent is no longer necessary, but that civilisation, imperfect and full of blemishes as it is, is now adjudged worthy of preservation, and will from now henceforth be led upon the upward path. Much

[1] They speak of Seven "Dimensions." In three of these we live, and they in the other four. Of these, three are superior, and inaccessible to mortals. The fourth alone is directly linked with the physical world, and becomes a channel of communication.

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pruning and grafting in of new stocks will be needed, and the process will be fraught with pain and struggle. But the issue is sure. "*So in place of the horrors of war will ensue the pains of reconstruction.*"



A. Chapel as indicated in the "Gate of Remembrance."
B. (shaded) Chapel as discovered.
C. "Cloister" adjoining transept D on west.
D. North transept (called in script "aisle of transept").
E. Nave (north aisle) of Abbey Church.
N.B.—Walls of D and E are now no longer standing.

Discovery of the Chapel of the Loretto

The full account of this important addition to the discoveries made at Glastonbury through the automatic script must be reserved for a future contribution, inasmuch as the work is still incomplete owing to lack of means and to restrictions imposed by the Trustees of the Abbey. Until a tree now growing over the east end of the foundations is removed, or its roots taken away, the full proportions of the Chapel cannot be demonstrated, nor can the site be laid out and properly levelled.

Several circumstances combine to render this discovery even more striking to the mind of the student of these matters than that of Bere's Chapel of King Edgar. In the first place, the documentary evidence was so slight that those antiquaries who had debated, and held theories about, the situation of the Edgar Chapel, had not even attempted to speculate as to the actual position of this one. Practically there was nothing to go upon except Leland's brief record, and this ran as follows:

> "Bere, cumming from his Embassadrie out of Italie made a Chapelle of our Lady de Loretta joining to the north side of the body of the Church."

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In the second place, the script which gave the clue to the dimensions and position of the chapel foundations, seemed in direct contradiction to this single authentic record, for it stated that the chapel was distant no less than 31½ feet from the nave. I would lay stress upon this fact as the whole subconscious trend of thought would rest naturally upon the impression most obviously derived from Leland's record and this would create the image of a building actually attached to the wall of the nave, or else within the north aisle or between the pillars of the north arcade.

In the third place, I had in this instance made a full publication of the script with all its details, early in 1918, and it was not until the late summer of the year following that the first sod was turned. Thus the priority of the script is more obvious, and more likely to carry conviction on that account.

What adds greatly to the interest of the discovery is the fact that, whilst the script is proved absolutely veridical in respect of the details it gave of the dimensions and locality of the Chapel, it was capable of an alternative interpretation on three heads, and the interpretation which I placed upon it was in all these three instances the wrong one. This again removes the communication from the sphere of subconscious mentality. It accentuates its entire independence. The ideas it suggests, now found to be fact, are therefore in contrast to any notion which could have been derived either from documentary evidence or from the subconscious working of the mind of the writer.

The following are the three points. The script said:

1. The side of it was distant from the navis thirty-one and a half feet.
2. And from the aisle of the transept he was fulle tenn feet, with a covered way unto, and four steppes up into ye aisle aforesaid.
3. Ye Chapell was full forty feet (long) and in width twenty.

Readers of the "Gate of Remembrance" will recall the conjectural plan which I drew (see p. 152) in interpretation of what I conceived to be the meaning of these particulars. This plan shows a Chapel having a length of 40 and a breadth of 20 feet in *internal* measure. Consequently the overall measure of the Chapel is shown much in excess of this. Again, my plan shows a *clear distance* of 31½ feet between the Chapel and the nave walls. Lastly I showed a narrow "covered way" 10 feet in length projecting westward as a link between the Chapel and the aisle like "cloister" lying alongside the transept. But the fact is that the dimensions of the Loretto Chapel indicate an approximate 40 by 20 feet *externally*, that the 10-foot "covered way" *does not project westward*, but overruns the north end of the cloister, and thus enters direct into the transept at its eastern extremity. Further, the distance of 31½ feet between the Chapel and the nave *is the distance as measured from the interior of the nave aisle*

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wall, to the face of the Chapel and not the clear distance. This accords with the wording of the script.

There is but little left of the foundations, and what there is, is the rough stonework, and not the architectural dressings. It was the constant practice of tenants of the Abbey to root out any freestone discovered in the ground, and to use or sell this as building material. This happened in almost every part. Generally speaking, the architectural fragments remaining occur either as small pieces in the clay trenches, where they have been thrown in with the dust of mortar, to fill up cavities produced by the removal of the foundations, or else we find them in small heaps at a little distance from the spot, round about the places where the sheds and bankers of the stone-sawyers were. In the case of the Loretto Chapel, I anticipate the discovery of architectural fragments on the north side, where the ground originally was deepest and much had to be thrown in. We may have to go another 10 feet in this direction before we find any substantial accumulation of them. But even a small "find" will help us to solve the problem of the style of the Chapel, and should the script prove veridical in its claim that the detail was Italian we shall have an indigestible meal for the sceptics. For there are no examples extant of a complete building of the date (*circa* 1504) in England in the Italian style.

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SPIRIT PHOTOGRAPHS

By C. Vincent Patrick and W. Whately Smith.

I.—Introductory

(W. Whately Smith)

SPIRIT photographs have long been a source of controversy and discussion, and signs are not lacking that public interest in them is at least as keen as ever. A Society for the Study of Supernormal Pictures has, for example, been formed recently, and it is by no means uncommon to meet people who owe much of their belief in Spiritualism to the results they have obtained through photographic mediums. This considerable public interest would alone suffice to make the subject important, but, apart from this, it is clear that if all—or even a fraction—of what is claimed be true the phenomenon must be of unique value from the point of view of strictly scientific research.

Photographic phenomena differ from practically all others studied by psychical researchers in being, so to speak, permanently objective. If one could be sure that the results obtained were not due to trickery one would be in a far better position as regards the problems of their origin and so forth than one is in the case of other types of "physical" phenomena. One could collect spirit photographs, compare them with one another, correlate their differences with the varying conditions of their production, and generally study them at leisure—a procedure which is not possible with table-levitations, materialisations, or direct-voice phenomena.[1] The photographic plate would, in fact, be the most powerful of all weapons of research if only we could eliminate all possibility of fraud. This is, as usual, the crux of the whole matter, and, as my collaborator and I hope to show, it is not nearly so easy to do as might appear at first sight.

Spiritualists commonly assert that photographic phenomena are easier to control than any others, and this is in a sense true. They would be easy to control *IF* one were allowed to take the necessary precautions. But one is not, and under the conditions which actually prevail at photographic *séances* the procedure lends itself to fraud more readily, and in more diverse ways, than any other form of mediumistic activity. Photography is a comparatively complicated process, and

[1] I am assuming, for the purposes of comparison, that these later phenomena actually occur—a point on which I am doubtful.

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at every stage there is opportunity for the astute trickster to produce the effect he desires. Part of the proceedings, moreover, *must* take place in a light which is inimical to accurate observation, and it should not be forgotten that, as a rule, the "sitter" is immobilised and placed *hors de combat*, so to speak, for an appreciable period while his photograph is being taken. (The significance of this will appear later.)

The various fraudulent methods which are or may be used and the question of the reliance which should be placed on the statements of those who believe that they have watched the proceedings so carefully as to exclude the possibility of fraud will be discussed at length later in this paper. I may as well say at once, however, that I see no reason for believing that any spirit photographs are, or have ever been, due to any cause other than fraud.[1]

But before discussing the various considerations which appear to justify this view I should like to make it clear that I, personally, am very willing to be convinced *if and when adequate evidence is forthcoming*. The question of what kind of evidence should be considered adequate is one which will be easier to answer after the various possibilities of fraud which must be eliminated have been pointed out. So far as I myself am concerned, I am prepared, further, to admit that photographic phenomena appear to me to be less improbable on general *a priori* grounds than many other alleged events of supposedly supernormal origin. We know that the camera can detect, or rather that the photographic plate is sensitive to, ether waves which produce no effect on the retina of the human eye, and it seems, on the whole, less improbable that "spirits," if they exist, should produce subtle and relatively minor etheric disturbances of this kind than that they should be responsible for the movements of gross material objects in the way which is often claimed for them.

I maintain this merely to guard, so far as may be possible, against the accusations of prejudice which will doubtless be brought forward by some readers. *A priori* considerations of this kind have their legitimate place, but it is on the relevant facts that our final decision must be based. On *all* the relevant facts. This is the important point. It may be a "fact" that some great wise and eminent man states that he took such and such precautions, "never let the plates (or slides) out of his sight," and so forth, but it is necessary to take into account, along with such statements as this, other facts about the psychology of deception, the reliability of witnesses, the potentialities of fraudulent methods and so forth which are usually ignored by enthusiastic devotees of the subject.

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[1] I exclude, of course, the very rare instances when photographs of apparently supernormal origin have been obtained by amateurs of unimpeachable integrity. I have yet to meet with a convincing case of this kind.

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One does not wish to be too dogmatic, there *may* be such things as *bona fide* spirit photographs, and when satisfactory evidence is forthcoming one will be very pleased indeed to make the *amende honorable* and acknowledge one's fault.

But in view of the many methods of trickery which are available and the known incapacity of untrained observers to detect fraud the evidence at present available seems scarcely worthy of serious consideration.

II.—Historical

(C. Vincent Patrick)

During the last half-century—that is, practically since the introduction of the photographic plate—various abnormalities have been reported in developed photographs. Some of these have appeared to reputable observers to be incapable of natural explanation, and have been eagerly seized upon by spiritualists as proof of survival after death—the sensitive emulsion being supposed to have recorded the presence of spirits, otherwise invisible. It is evident that a permanent photographic record, if its genuineness can be established, would stand almost alone as evidence of the presence of the spirit-forms described by clairvoyants.

Various types of such photographic abnormalities must be distinguished:

1. "Thought photographs," "dream photographs," photographs of "psychic auras," and the like. These are rarely distinct, and as they have little bearing on spirit phenomena they will not be discussed here.

2. Photographs taken of a visible spirit form. Such have been taken at *séances*: *e.g.*, by Sir William Crookes, of Miss King's "control," Katie. The photographs taken recently at the Goligher circle should perhaps be included in this category. Similar experiments might, perhaps, be carried out in a "haunted house"—provided that one can be found which bears investigation.

3. The more usual type of "spirit photograph," with which this article is chiefly concerned. Here a plate is exposed upon a sitter or sitters, and on development an "extra" appears, varying from splashes of light to fully-formed features or figures. The presence of a medium is usually regarded as being essential for such phenomena; but similar appearances have occasionally been obtained by amateurs on several well-attested occasions, either unexpectedly, or upon plates deliberately exposed for the purpose, no professional medium being present.

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4. In some cases the plates are not exposed in a camera, but merely submitted to "spirit influences," which results in more or less distinct faces, or even screeds of writing, appearing on development.

It is not perhaps surprising to find that the spirit photograph originated in America, where it dates back to the days of the wet-plate process. The first recorded case comes from Boston, in 1862. One Mumler, an engraver by trade, made chemistry and photography his hobby; and having among his friends a professional photographer, he was frequently dabbling with plates and chemicals in his studio. Up to this time he had shown no mediumistic tendencies, although it is safe to assume that he must have known something of spiritualism, since this was attracting much attention in America at the time.

One day Mumler suddenly produced a photograph of himself, standing, with a chair by his side supporting a shadowy female figure. The face of this figure was not clear, though the upper part of the body was fairly well defined; below the waist it faded away. The chair and background were distinctly visible through the extra. He alleged that this was an untouched photograph, which he had taken by focussing the camera on the chair, inserting the plate, and standing by the chair for the period of the exposure. This picture raised a considerable stir, and Mumler published the following declaration in the press: "This photograph was taken of myself, by myself, on Sunday, when there was not a living soul in the room beside myself—'so to speak.' The form on my right I recognise as my cousin who passed away about twelve years since.—W. H. MUMLER."

Not unexpectedly, other people soon wanted their dead relatives to be photographed with them, and Mumler's services were in considerable demand. Many of his sitters were rewarded with extras, and he soon started a regular business, claiming that he was a medium for taking spirit photographs. His pictures aroused much interest both in America and in this country, and he evidently found it a paying business. The following advertisement with regard to copies of his photographs appeared in the *Spiritual Magazine* for 1863:

"The packet of three photos may be obtained from Mr. Pitman, 20, Paternoster Row; price 3s. 6d."

Very few copies of Mumler's photographs still exist; they are all similar in their general characters to the first. Noteworthy points are that the spirits are always without legs, and are usually on the right of the sitter. A considerable number of his extras, indistinct though they were, were recognised by the sitters and their friends as the dead person whose photograph they were expecting. (The value of these recognitions is dealt with in a later section.) Naturally, cries of fraud were raised, and investigators, consisting of men of science and newspaper representatives, devised "test conditions" to eliminate this possibility. This they did to their own satisfaction, and obtained spirit

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extras; but on reading their accounts it is easy to see that ample loopholes were left for fraud. In some cases the camera and lens were minutely inspected, and Mumler's operations carefully supervised, but a glass plate provided by Mumler was used for the sensitised emulsion. (How this renders a natural explanation of the extra possible is explained in the section on methods of fraud.) In other cases where tests were instituted the developing-room was in complete darkness, no ruby light being used, which put the investigators completely in the medium's hands.

On one occasion Mumler was persuaded to forsake his studio for the private house of an investigator. Here he was not allowed to use any of his own apparatus—camera, plates, and chemicals all being provided for him. The result was a complete failure to get anything abnormal on the plates. Mumler explained that he "thought his (medium's) influence had not been sufficiently long in contact with the chemicals." This one can readily believe.

He presently became bolder, and his spirits' features became more distinct. This led to a bad mistake, for in February 1863 the sceptics were able to show that one of Mumler's spirit extras was the likeness of a man still alive, and living in Boston; and, worse still, that this man had had his photograph taken by Mumler a few weeks before. Such carelessness on the part of the spirits ruined a promising business, for after the outcry which followed we hear no more of Mumler for some six years.

In 1869 he appeared again in New York, and commenced business on his old lines. Before he had been practising many months, however, the public authorities arrested him, and prosecuted him for fraud. At the trial the Boston evidence was disallowed and consequently little positive evidence of fraud was brought against him, for he had only been practising in New York for a short time. The chief ground of the prosecution was a spirit extra which he represented to be a dead relative of the sitter's, whereas the latter declared it to be utterly unlike the relative in question. The trial was interesting, in that Mumler was defended by many of his sitters, who swore that they recognised his extras as their dead friends; and by others, including a professional photographer, who had investigated his processes and had found no evidence of trickery. He was acquitted for lack of evidence on the part of the prosecution; but he apparently gave up producing spirit photographs, for no more is heard of him.

Three years later spirit photographs were being taken in this country. Hudson, the principal exponent, was introduced by Mrs. Guppy, a well-known medium of the time. His performance was on the same lines as Mumler's, and his results similar, the faces of the extras being always partly obscured and the figures draped. Nevertheless, many of them were recognised. The usual unsatisfactory

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tests were applied by the more sceptical sitters; in particular we have the report of an optician named Slater, who took his own camera and lenses to Hudson, obtaining "a fine spirit photo" and observing "no suspicious circumstances." However, a less easily duped critic soon appeared, in the person of one Beattie, a professional photographer of Clifton, and a man of high repute. He showed that in many of Hudson's photographs not only did the background appear through the extra—as might perhaps be expected with an ethereal spirit—but that the background was clearly visible through the very material bodies of the human sitters! Sometimes the backgrounds had a double outline; and in one case at least he was able to point out that clumsy attempts had been made to obliterate, by retouching, the pattern of a carpet showing through the legs of the sitter. All this clearly pointed to double exposure and fraud; and Beattie was joined in denouncing Hudson by the editor of the *Spiritualist*. In fact, on closer inspection, Hudson's pictures were found to be very poor frauds indeed; some of the "spirits" were stated by the critics to be Hudson himself dressed up!

Much controversy followed this exposure; while many declared that spirit photographs were an utter fraud, others considered that though some were genuine, mediums frequently obtained their spirits by trickery in order not to disappoint their sitters. Few went so far as to declare their belief that the phenomena were *all* genuine, and these few were mostly those who had identified as their dead relatives the extras presented to them. Ingenious explanations were offered by them of the appearances pointed out by Beattie; the spirit aura was, they declared, doubly refracting; hence the legs of a chair might, by atmospheric refraction, appear through the legs of its occupant. It is possible that the unscientific were impressed by such explanations. Support was certainly lent to them for a time by the statements of Mr. Russell, of Kingston-on-Thames. Working as an amateur for his own satisfaction, he declared that he had obtained spirit photographs showing evident signs of double exposure, whereas only one had taken place. Challenged to produce his plates, however, he demurred, and eventually said that they had been accidentally destroyed.

Disgusted by the trickery he had detected in Hudson, Beattie determined to experiment for himself as to whether genuine spirit photographs could actually be obtained. He accordingly set to work with some friends, one of whom was reputed to be a medium, and held many *séances*, exposing dozens of plates with but little result. He procured as his dark-room assistant a certain Josty, whose character, unfortunately, appears not to have been above suspicion. Thenceforward streaks and splashes of light were obtained on some of the plates, though the *séances* were mostly blanks. Josty discovered himself to be possessed of clairvoyant faculties, and declared that he

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saw spirits at the *séances* ; the marks on the plates would then appear in the positions he had indicated. These marks had only the very slightest resemblance to human figures: one is described as being like a dragon. Out of several hundred plates, thirty-two bore these marks. Beattie's integrity was never challenged ; but it has been suggested that Josty produced the smudges on the plates—as he very easily could do—in order to keep himself in employment of a light and lucrative character. In any case, the results obtained were so trifling, and so different from the usual professional medium's photographs, as to be chiefly of value as negative evidence.

Similar experiments were made by Dr. Williams, of Haywards Heath. He exposed plates, in the hope of obtaining spirit extras, over a period of eighteen months. Out of many hundreds, he obtained three plates with unexplained marks on them, one of which bore some resemblance to two eyes and a nose. He also claimed that a complete human figure developed on one of his plates, only to disappear again ; this could scarcely have had any objective existence, since there was no trace of it in the finished negative. The value of his experiments, also, can only be considered as against the occurrence of spirit photography where trickery plays no part.

In the summer of 1874 there came to London a Parisian photographer named Buguet, who represented himself as able to photograph spirits. Besides being a more skilful photographer than his predecessors, he appears also to have had a sense of humour. The spirit faces of Dickens, Charles I., and other celebrities appeared in his photographs ! His spirits had clearly-defined features, and were much better productions than anything that had appeared before. Many well-known people sat to him, and were duly rewarded with the spirit features of their equally well-known friends. Next year he returned to Paris, and, continuing in business there, produced among other things a photograph of Stainton Moses, the spiritualist, while the latter was lying in a trance in London, his spirit being supposed to have visited Buguet's studio in Paris.

Before he had been back long, however, the French authorities intervened. His studio was raided by the police and a large stock of cardboard heads, a lay figure, and other incriminating paraphernalia were found. Buguet was arrested and charged with fraud. At the trial he made a complete confession. All his spirits had, he said, been obtained by double exposure. At first his assistants had acted as the ghosts, but this soon became dangerous on account of constant repetition of the same features, and he procured the lay figure and cardboard heads for the purpose. He also explained how he employed his assistants to extract all possible information from the sitters, as to the facial characteristics of the spirits they were expecting. And then came the extraordinary feature of the trial. In spite of the damning

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material evidence against him, and of his own confession, witness after witness came forward to defend him! They said they had sat to him and obtained unquestionable likenesses of their dead relations, and had satisfied themselves that no tricks were played upon them. In spite of Buguet assuring them in court that they had been deceived, they maintained that it could not be so. Buguet pointed out to the court one face which had been recognised as the mother of one sitter, the sister of a second, and the friend of a third. One spirit, recognised by a sitter as his lifelong friend, was declared by another man to be an excellent likeness of his still-living—and much annoyed—father-in-law. Buguet was convicted and sentenced to twelve months' imprisonment and a fine of 100 francs. It was maintained by spiritualists in England that he had been bribed to make a false confession; and after the expiry of his sentence he appears to have told the same tale. This, however, quite fails to explain the finds made at his studio by the French police.

At the time of Buguet's trial, another spirit photographer, Parkes by name, was practising in London. He never produced photographs of any value, as he gave but little opportunity of watching his proceedings in the dark-room; nor were many of his extras recognised. Nevertheless there are certain points of interest in his career. Some of his plates showed evident marks of double exposure; he was adroit enough to write articles to the spiritualistic papers, drawing attention to this fact and suggesting theories to account for it. It had been previously assumed by spiritualists that the spirit forms, although invisible to the eye, were present at the side of or behind the sitter, and that their images were projected on to the plate by refraction through the lens in the ordinary way. Hence their images on the plate would be inverted, like the image of the sitter. Parkes, however, described an experiment, which he professed to have carried out, throwing doubt on this. He placed, he said, a mirror obliquely across the camera between the lens and the plate, so as to project the image of the sitter and background on to a second plate at the side of the camera—the same principle employed in the viewing screen of the modern reflex camera. He said that the position of the spirit photograph was unaffected by the mirror, and that the extra still appeared on the plate at the back of the camera, while the sitter and background were naturally only photographed on the side plate. He further declared that the spirit was not affected by the lens, and appeared *erect* on the back plate, instead of inverted as a normal photograph would be. The absurdity of this statement is evident when we realise that in his ordinary photographs sitter and spirit appeared the same way up—*i.e.*, both inverted on the plate; in order to effect this and comply with his other statement, the spirits would have to be standing on their heads beside the sitters! Now Parkes also professed to have

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clairvoyant power, and claimed actually to *see* the spirits standing with the sitters; as he never mentions them adopting the inverted attitude we may safely assume that they did not put themselves to this discomfort. One, at least, of Parkes' statements must therefore have been false.

On one occasion, however, his spirit extra *did* appear upside down. The plate—supplied by the sitter—was loaded into the camera by Parkes in the usual way, and all was ready for the exposure when a photographer present requested that the plate be inverted in the camera. This was done, and the exposure made; with the result that on the developed plate the spirit was inverted with regard to the sitter. It was indeed fortunate for Parkes' reputation that the company present were able to affirm that the plate on which this occurred "had never been in Parkes' possession before"!

Since 1875 a number of spirit photographers have practised in this country, but few have attained any note. Not many people have considered their claims seriously, any critical investigation soon finding cause for suspicion, if not actual evidence, of fraud. Perhaps the two best known are Boursnell, who was taking spirit photographs in London during the first decade of this century, and Hope, of Crewe, who has now been practising for many years, and has attained considerable proficiency in the art. The conditions allowed have never been such as to preclude fraud, and the general method of procedure and results obtained have been so similar to those of their predecessors as to need no separate description. In 1909 a Commission was appointed, under the auspices of the *Daily Mail*, to investigate the subject. The Commission consisted of three spiritualists and three expert photographers; at the conclusion of the investigation the photographers reported with regard to the results obtained that "they would not testify to their supernatural production; they bore on the face of them evidence of the way in which they had been produced." They pointed out that some of the plates had been exposed twice, as shown by the marks on the edges caused by two different patterns of dark slide. The spiritualists, on the other hand, reported that "the photographers were not in a proper frame of mind" to obtain results.

In America the movement has always found rather more adherents than in this country. Spirit photography has been practised in different parts of the United States practically since Mumler's time to the present day; the same medium usually producing other kinds of spirit phenomena as well. The conditions under which most of these photographs have been taken, and the ridiculous results obtained, renders them unworthy of serious consideration. It is quite usual to find in the background of these photographs a dozen or more heads, of all shapes and sizes, and with all kinds of headgear; bunches of flowers often appear, and even a spirit buttonhole sometimes ornaments the

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lapel of the sitter's coat! An amusing account is given by Hereward Carrington[1] of a visit to a medium of this type at Lily Dale in 1907:

"On arriving at Mr. Norman's house I was obliged to wait for some time on the verandah, as he was busy inside the house with a 'customer.' When he came out I was invited to sit 'just where I was,' and the medium disappeared into the house, and the next minute came out carrying a large camera and two plates, already in the slide, prepared. There was a white chalk-mark on one side of the double-back plate slide, and this side was carefully inserted foremost. Mr. Norman erased the chalk-mark with his finger as he inserted the slide into the camera. I posed, and the photograph was taken.

"Next we went indoors. The plate slide was reversed, and the room placed in total darkness. I was informed that 'the spirits would materialise their own light,' and that none was needed. This was 'where the mediumship came in.' The second plate was then exposed, the cap being removed about a minute. During that minute I was informed that I 'should sit for physical manifestations,' and the medium asked me if I had ever sat to a spirit photographer before. . . .

"When, however, I asked the medium to allow me to examine the process of development of the plates, he flatly refused to allow anything of the kind! I said cautiously that I should think it would be very interesting to watch the development of a plate upon which might appear spirit faces; the answer was that these faces developed in exactly the same manner as any other faces. I replied that I should like to watch the process in order to convince myself that they developed in the manner stated, and that they were not already on the plate. The result was to bring forth a flat refusal to allow me to watch the process of development! It need hardly be said that this refusal to allow any test conditions of the most elementary order deprives the photographs of all evidential value; and definite evidence of fraud was brought against this medium at a later date. For when the photograph was examined, none of the faces bore the slightest trace of any family resemblance; and, more than that, the photograph showed unmistakable signs of fraudulent manipulation. One of the faces, that of a woman, upon being examined through a magnifying glass, clearly shows the miniature indentations made by the electric needle in reproducing newspaper cuts. This is clearly noticeable in the forehead, but can be seen to extend all over the face, even with the naked eye, examined carefully. This face was therefore copied from some newspaper or magazine, reproducing it from the paper in which it originally appeared. The other faces show clear marks of manipulation."

A new method of procedure in taking spirit photographs was

[1] Hereward Carrington, *The Physical Phenomena of Spiritualism*.

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apparently introduced by one Wyllie, of San Francisco, about 1903. No camera was used; the plates were unpacked in the darkroom and held by the sitter, Wyllie simply placing his hands on the plate for some seconds. On development, a face or faces, more or less blurred, would appear. These were never larger than the print of a thumb, which suggested to Dr. Pierce—who was investigating Wyllie's methods—that they were possibly produced by chemicals pressed into contact with the plate. He therefore made Wyllie wash his hands before entering the dark-room, but the extras still appeared. It would, of course, have been a simple matter for the medium to have had concealed about his person a slip of thin card or a small rubber stamp, with an "extra" sketched on it in some suitable chemical; when in the dark-room this would be palmed and applied to the plate. Dr. Pierce, however, evidently considered the results were genuine spirit manifestations, and the next year carried out a series of experiments by himself in London. Needless to say, he found that without Wyllie's mediumship no results could be obtained.

Another modern development, which has been largely exploited by Hope, of Crewe, is the "psychograph." For this, again, no camera is used; a plate is carefully wrapped up, usually sealed, and submitted to the medium's influence. The plate is then developed by the victim, and screeds of writing appear, usually arranged in circles instead of lines. Sometimes the plate is sent to the medium through the post, carefully wrapped and sealed, and returned apparently unopened a few days later. On development, the message appears—and the most banal rubbish it usually is. Yet many people actually believe that these productions are the means adopted by higher intelligences to communicate with us. Surely such folk must be lacking in a sense of humour?

III.—Fraud

(C. Vincent Patrick)

A.—General Methods

The taking of spirit photographs under so-called "test conditions" has frequently been carefully investigated by men of high reputation in other walks of life, chiefly men of letters and men of science. In many cases they have been unable to detect any trickery, and after due consideration have decided that they know of no natural means by which the results obtained could be produced, under the conditions employed. This is in itself a perfectly fair conclusion; but it does not follow that because they know of no natural method, no such method

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can exist; unfortunately the argument is frequently carried to this stage. Let us suppose that an eminent physicist watches a sleight-of-hand conjuror, who produces a dozen or more eggs from a small velvet bag, which was unquestionably empty when examined by the audience a few seconds previously; he will certainly not assume mediumistic powers on the part of the conjuror, or postulate the materialisation of a spirit hen. He realises that he is being deceived; he has had no training in conjuring, and does not know what to look for in order to "see through" the trick. How, then, does he expect to be able to detect a trick played upon him, probably in the dim light of a photographic dark-room, by a clever medium who has every method of trickery at his fingers' ends? Even if he knew what to look for, the chances would be all in favour of the medium under the conditions which usually obtain; and in actual fact he probably has no idea of the multiplicity of methods which may be used for his deception. It seems therefore desirable to enumerate some of the many methods by which spurious spirit photographs may be produced. The following list makes no pretensions to being complete, but may give some idea of the variety of methods which the accomplished spirit photographer has at his service.

Group I.—Methods Involving Double Exposure and Substitution, in which a plate previously prepared with an undeveloped extra is substituted for the plate provided by the sitter. This gives excellent photographs, as the extra may be as distinct in detail as is desired, and the exposures can be calculated to a nicety, giving a suitably transparent spirit with a more solid portrait of the sitter. The substitution of the plate may be effected at almost any stage in the proceedings, for example:

(*a*).—Methods involving substitution of the entire packet:

1. The medium may be in league with the shop from which the plates are purchased, the unfortunate sitter buying a box of plates already prepared with spirits. Wise sitters buy their plates at a distance, but mediums frequently demand a particular brand of plate, and if those brought by the sitter are declared unsuitable, he will have to go out and purchase the correct ones. He is naturally supplied with the address of the nearest photographic dealer, and the name of the brand of plates is written on a slip of paper to show the shopman; this ensures no mistake being made.

2. If the sitter brings the right plates he will show the packet to the medium before entering the dark-room to make sure that they are all right. The medium takes the packet into his hand for a moment—turning to the light to read the label—and passes them back with the remark that they are the right kind—which now they certainly are, for the sitter's original packet is in the medium's breast-pocket.

3. The sitter may perhaps autograph or otherwise mark his packet

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before coming to the medium, in order to prevent any such substitution. In this case the medium will wait until the wrapper is torn off in the dark-room, when he may be able to handle the box for a moment on some pretext,[1] and the dim light makes the substitution easier than before, particularly as it occurs during the first minute or so in the reduced light before the sitter's eyes have become accustomed to it.

If these methods are employed, the medium usually finds it necessary previously to mark the plate or plates in the box that have the latent extras, in such a way that he may be sure of not getting the spirit inverted: a slight scratch on one edge will suffice for this.

(*b*.)—Methods involving substitution of the faked plate only, after removal from the original packet:

1. With an unwary sitter this may be done in the dark-room. The sitter usually marks the plates; while he is marking one, the medium may be able to exchange his prepared plate for one of those not yet marked.

2. A trick dark-slide may be used, having a secret partition, and already containing the faked plate.[2] If the sitter is content to mark the plate after it is placed in the slide, he may easily be caused to mark the prepared plate instead of his own.

3. If the plates are not marked, it will be a simple matter to substitute, during the focussing operations, a duplicate slide containing a faked plate.

4. Little accidents are apt to happen in the unaccustomed light of the red lamp; while the sitter is groping on the floor for a wrapper he has dropped, or while his attention is in some other way diverted for a moment, the exchange is made.

I am aware that many will ridicule the idea of such a simple trick being played upon an intelligent observer; but any conjuror, whose business it is to do this kind of thing, knows that it is remarkably easy.

5. Sometimes the first photographs taken are blanks, the sitter then returns to the dark-room and loads up some fresh plates out of the packet. It may not occur to him that an accomplice of the medium has had access to the dark-room in the meantime, and when he gives his account of the *séance* a few days later he will probably have entirely forgotten that the plates were not all loaded at once.

Substitution can, of course, be effected in many other ways; every medium probably has his favourite method which he chiefly practises.

It may be pointed out here that in the case of a regular sitter who always marks his plates in the same way, as most do, it would not be

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[1] *E.g.*, to verify the "speed" of the plates.

[2] *Cf.* trick slates used by slate-writing mediums.

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at all difficult to forge his signature on a prepared plate and substitute this for one of the marked plates.

Group II.—Other Methods, conveniently classified as follows:

(*a*).—Methods involving preparation of the studio:

1. An accomplice may be concealed behind the sitter, and be photographed with him; this is the simplest way of all, the sitter facing the camera, and, being told not to move during the exposure, is unaware that a "spirit face" is behind him, framed in an unsuspected opening in the background. Being behind the sitter, the face will be a little out of focus, and will appear rather blurred on the negative.[1]

2. It has been suggested that a mirror, or sheet of glass—on the principle of "Pepper's Ghost"—may be introduced behind the sitter, producing the spirit by reflection of an accomplice hidden from the sitter. In practice this would be rather complicated and difficult to conceal; it would seem to have no advantage over the preceding method.

3. The extra is frequently sketched on the background—especially if this be a plain one—in some fluorescent substance, such as quinine sulphate. Such a sketch is invisible to the eye, but visible to the photographic plate. Many of Boursnell's spirits appear to have been produced in this manner.

(*b*).—Methods involving the camera and dark slides:

1. A trick slide may be employed, in which the shutter contains a positive transparency of the desired extra, held in such a manner that it can either be withdrawn with the shutter, or left in position in front of the plate when required; *i.e.*, during the exposure, which will have to be somewhat longer than usual.

2. A similar transparency may be inserted in the camera, close to the plate, and between it and the lens, during the focussing operations. The black focussing-cloth makes an admirable screen for such manipulations, while the sitter is of necessity immobilised a few feet from the camera. It is easy to imagine how a transparency on a spring mount could be slipped into the camera under cover of the cloth in such a way as to press up against the plate when the shutter of the slide is drawn.

3. It is stated that a doubly refracting lens has been used, focussing on to the same plate both the sitter and an object concealed at one side of the studio. Such a contrivance may have been employed, but would certainly not be cheap to manufacture.

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[1] This method will probably be scoffed at by some enthusiasts, but it should be remembered that the simpler and more audacious methods are the most likely to succeed, just because they are so obvious that no one thinks of them. The sitter *must* keep still and *must* look at the camera for some seconds while the exposure is being made, and provided the accomplice is revealed by a carefully silenced mechanism the chances of detection are negligible.

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4. A simpler method of obtaining the same result is to have a pinhole in the bellows of the camera; a brightly illuminated object at the side and rather in front of the camera will then throw an image on the plate. A considerable exposure will be needed to give a fair extra; but this will present no difficulties, as the pinhole will be open all the time the plate is in position, and not merely during the few seconds that the lens is uncapped for the photograph of the sitter.

5. An extra may be painted on the inner surface of the dark-slide shutter, in some radio-active chemical. The shutter usually only clears the surface of the sensitised emulsion by a fraction of a millimetre, and a fairly distinct extra will be produced if the plate is kept in the slide for a sufficient length of time—depending, of course, upon the amount of radio-active substance used.

(*C*).—Dark-room methods.

1. In the days of the wet-plate process, when plates were cleaned and used a second time with fresh emulsion, it would sometimes happen that the original photograph would re-develop on top of the second, very careful chemical cleaning of the plate being necessary to prevent this. Mumler's first spirit photograph was probably produced in this way, and the knowledge was turned to good account by several of the earlier spirit photographers. Some of the unexpected results obtained by amateurs may be attributable to this cause, because a certain number of used plates are returned to plate manufacturers, who clean off the emulsion and use the glass again. The cleansing may sometimes be imperfect, and in these cases the original image may appear on development.

2. Faces may be sketched in chemicals on small pieces of card, or even on the medium's fingers. On opportunity arising in the dark-room, the medium holds or steadies the plate for an instant, bringing the chemical pictures into contact with the plate. Or he may so manœuvre it that the plate is laid face down on a prepared surface of the dark-room work-bench, probably while it is being marked [1]; upon development of the plate extras will duly appear. The most refined version of this method consists in the preparation of small rubber stamps in which the chemicals are smeared. These can easily be palmed and dabbed for a moment on the plate in a manner which appears quite unsuspicious. A number of active chemicals will produce this effect, but the medium must be careful to know whether the substance he is using will accelerate or retard development in the affected part; for cases have occurred in which a positive extra has been produced on the negative plate, giving a negative spirit on the finished print!

3. Mr. Bush, in his recent pamphlet, "Spirit Photography Exposed,"

[1] *E.g.*, on the back with a diamond.

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describes a piece of apparatus made out of an empty blacking-tin containing a small electric bulb, one side of the tin being replaced by a positive transparency of the desired extra. This, he alleges, is used by Hope, the Crewe spirit photographer, the transparency being pressed against the plate and the light switched on for a second. If carefully faced with black velvet round the transparency, this device should be quite useful; but it must be remembered that an escaping ray of white light would at once catch the eye in the dark-room. Skilful palming and manipulation should make it quite possible for an extra to be printed on the plate in this way, if the medium can cover it with his hand for a moment or two. All Hope's results are certainly not produced in this way, however, as is implied by Mr. Bush.

4. The medium may palm a positive transparency; if he is allowed to handle the plate he will hold it close to the red lamp with the transparency between; if the lamp is rather bright, or is not a very deep red, an impression is soon made on the plate.

5. With a pinhole in the dark-room lamp, and a transparency inside—a perfectly practicable arrangement with some of the more complicated dark-room "safe-lights,"—a pinhole projector can be formed, which will throw an image on a suitably-placed plate. Any leakage of white light into the dark-room, either from the lamp or from outside, can be used to produce blotches and streaks on the plate. A very little mechanical ingenuity will enable a medium who takes a pride in his work to rig up an arrangement of this kind which can be switched off and on at will and which will project an image on a predetermined spot on the bench. By the simple expedient of having the bench so cluttered up with bottles and miscellaneous rubbish that this spot is the only unencumbered one, the unsuspecting sitter may be forced to lay a plate on this spot while, for example, he is marking another. The medium may ostentatiously stand at the other end of the room and "switch on" for a moment while the sitter's attention is engaged with his marking.

6. Photographic plates are sensitive to rays invisible to the eye, as has been pointed out in considering the effect of fluorescent substances. X-rays and ultra-violet rays, for instance, both invisible yet strongly actinic, might be used in the most baffling manner in the production of spirit extras. The expense and technical difficulties would be considerable, but were any medium to take the method up, he might safely defy the most critical investigation and would soon recoup himself for the few pounds initial outlay.

There are undoubtedly many other methods used by mediums for this purpose; but if the sitter who has obtained spirit extras under test conditions carefully considers the procedure employed, in the light of the suggestions made above, he will probably find that several loopholes were left by which fraud might have been introduced.

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B.—Experiments in Fraud

The argument most frequently brought forward, in favour of the genuineness of spirit photographs, is that the conditions employed in their taking leave no loophole for fraud. It has been pointed out in the preceding section that the usual "test conditions" leave not one, but many, such loopholes. Evidence of fraud has at some time or other been brought against most spirit photograph mediums, and they have consequently been more or less discredited. Other mediums have been more clever—or more fortunate—and many people therefore argue that they are not all to be tarred with the same brush; it is pointed out that spirit extras *have* been obtained under the strictest conditions imposed by acute observers who have found nothing suspicious of trickery.

It occurred to me that the most effective way to refute this argument was actually to produce bogus spirit photographs under similar, or even more stringent, test conditions. This I accordingly attempted in a series of *séances*, held in my rooms at Cambridge in the summer of 1919. At four of these *séances* photographs were taken, and on each occasion one plate showed a more or less conventional spirit extra. As I was experimenting primarily for my own satisfaction, my seven victims were drawn from among my own friends, and were enjoined to keep the matter as quiet as possible. They were not, of course, specially trained psychic researchers, but could not, I think, be considered as being particularly easy men to deceive. Five of the seven were ex-Service men, and all were of B.A. or "fourth year" University status; they included two chemists, two medical students, a geologist, and two physiologists who were also studying psychology. They were all therefore of a scientific bent, and, with possibly one exception, were completely sceptical about spiritualistic phenomena when the experiments started.

I first suggested to four of them that we might try to obtain a spirit photograph, like those described and reproduced in recent magazine articles. They did not take me very seriously at first, but after we had obtained the right atmosphere with a little table-turning, they consented to try for a spirit photograph. When a spirit face duly developed in addition to the sitter, everyone present expressed amazement! I was naturally asked if I was "pulling their legs." I hedged and refused to say either yes or no, explaining that I wanted the experiments to continue under scientific conditions. If, on the one hand, I declared that I had not in any way faked the photograph, they would probably believe me, and would not insist on further photographs being taken under test conditions. If, on the other hand, I refused to give such an assurance, they would think that I was probably tricking them, and would take all possible steps to "bowl me out";

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and when they failed to do so would thereby establish evidence of the genuineness of any further photographs we might be lucky enough to obtain. After some little demur they saw the point of this—or as much of it as I wished them to see—and agreed to meet again in my room on the following Sunday evening, promising that I should be given no opportunity of playing any tricks. It was also agreed that notes should be taken during the *séances* as far as possible, and that full reports of what occurred should be drawn up afterwards by all of us in conjunction, which everyone would sign.

I now quote their report on the next two meetings, omitting nothing except their names, which I have replaced by single letters, at their request.

"On the following Sunday, July 20th, at 8.15, there met in Patrick's rooms A, B, C, and D. Saturday being a Bank Holiday, the plates were purchased on Friday evening by B, and kept by him until the meeting. B produced his plates, unopened, and after some preliminary table-turning and rapping, more successful than at the previous meeting, it was decided to proceed with the photographs. A carried the plate-box unopened to the dark-room, and he and D sat closely on either side of Patrick, and watched him open the box and load two double dark-slides; they were satisfied there was no substitution or trickery, or anything in the least degree suggestive of it. The wrapper of the box was broken in full view of both, and Patrick loaded the top four plates into two double dark-slides, which were examined by A and D immediately before they were loaded; they did not leave their sight from the moment of examination until the photographs were taken. The camera was also subjected to careful and minute examination, especially by A, who removed the lens and examined both it and the interior of the camera. The lens was then replaced, and the focal plane shutter set in the open position, the exposures being made by the simple expedient of withdrawing the shutter of the dark-slide.

"At the request of C, before approaching the camera to focus it, Patrick removed his coat, rolled up his sleeves, and was carefully searched by him.

"It had been arranged that Patrick should take a photograph of each of the four others present, under identical conditions. The background was arranged, as before, of gowns hung over a cupboard, but was made more complete. The subjects occupied the same chair in succession; of the others, one stood by the light switch, and the two others by the camera, to watch the photographer. Patrick attended both to the camera and the flash production. The exposures were made, as stated, by withdrawing the shutter of the dark-slide; the focal plane shutter was not touched throughout. The electric

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light was therefore switched off for a few seconds while the shutter was drawn and the flash being lighted. Sufficient light came through the white window-curtains (9.30 p.m. Summer Time) to enable those in the room plainly to see each other, and watch the photographer's movements. The four photographs were taken in rapid succession.

"The slides were taken back into the dark-room, and developed by A and Patrick in conjunction. B and C watched in turn, and D also watched part of the time. One of the plates was quickly observed to have an 'extra' developing on it. A bromide print was again taken from the wet negative, and showed on the photograph of D the head of an elderly man, besides a very fair photograph of the sitter. The extra face was above D's head, and to his right. The "spirit" was bearded, and partly bald, with a somewhat melancholy expression. There was a suggestion of a white collar. On the left of the face and somewhat above it was written in white on the black background what was apparently a signature, with two final letters of a preceding word. It was dubiously deciphered as '. . .ly S. Simmonds.' Neither face, name, nor writing were recognised by any one, either at the time or subsequently.

"The three other photographs were fair portraits, but showed no abnormality.

"A third meeting was held in the same place at 8.15 p.m. on Sunday, July 27th, when even more stringent conditions were imposed on the photographer.

"The plates were bought on Saturday evening by D; other men should have been present, but did not turn up at the arranged time. D took the plates to his own rooms, where Patrick sealed them for his own satisfaction. The box was kept locked up by D till he brought them to the meeting on Sunday, and he did not part with them till he gave them to E to take into the dark-room.

"At this meeting there were present A, B, C, D, E, F, and G, besides the photographer.

"When all had arrived, E carried the plates to the dark-room. C brought a dark-slide, which he had abstracted and kept since the previous meeting. Before going into the dark-room Patrick, again at the request of C and E, removed his coat, rolled up his sleeves, and was searched, C even going to the length of examining his socks for possible concealed plates or dark-slides.

"Patrick wished to load the slides himself, as they were rather delicate. Accordingly neither slide nor plates were passed into his hands until he was sitting in front of the ruby light, with E on one side of him and C and F on the other. He broke the seals, and in full view of these three loaded a single plate into compartment No. 3 of the dark-slide. This was then immediately taken from his hands

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again by E, and he and C locked it in a drawer of the desk, upon which stood a reading-lamp, which was never extinguished throughout all the subsequent proceedings. C kept the key of the drawer, and passed it to E when the slide was required.

"Some table-tilting was then carried out by all except C, who remained at the desk and acted as secretary. The lights were all put out except the reading-lamp he used, which was, as stated, over the drawer where the dark-slide lay locked.

"After half an hour or so of moderate success with the table, E and Patrick also dropped out, to take a flashlight photograph of the group round the table. Patrick prepared the flash-powder, and set up the camera—which had previously been examined—by the side of the desk and lighted lamp. E again examined the camera, inside and out, and when Patrick had focussed it examined the view in the ground-glass screen. (The lights were put up for a few minutes, to aid the focussing, etc.) When all was ready, E received the key from C, unlocked the drawer, and took out the dark-slide. He saw that it was undoubtedly placed in the camera right way about, *i.e.*, No. 3 compartment in use, and the shutter withdrawn. When the table had commenced its tilting again the flash was fired by Patrick. C took notes of the movements of the table, and at the same time watched the camera, which was in the full light of the reading-lamp throughout. After the flash the shutter of the slide was replaced, and on removal from the camera the slide immediately passed again into the possession of E. Any substitution of plate or dark-slide was thus rendered out of the question.

"The dark-slide was taken to the dark-room by E, and he and C watched Patrick open it, remove the plate, and develop it. As before, E kept the slide till everything was ready, and passed it to Patrick in the full light of the ruby lamp, C checking the number of the compartment in which the plate had been loaded, and still remained (No. 3). On development, Patrick pointed out that there was a hand at the top of the plate, which could not belong to any of those at the table, and was pointing with its index finger at one of the group. On fixing, it was examined more closely, both by Patrick and the two others. All three distinctly saw the image of a hand and wrist, pointing, the forearm being draped. It was in fairly sharp focus, and appeared, by its proportion, to be rather nearer the camera than the centre of the table, above which it appeared to hang suspended. A shadow cast by it was plainly seen, larger and less sharply focussed, apparently on the back wall of the room. (A picture on this wall had previously been removed, to eliminate any reflection, and leave the background clear.) There was a general appearance of drapery surrounding the group, particularly at the sides; there was in this the suggestion of a trunk to which the hand might belong. The appearance of the picture

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was very startling, and Patrick suggested that as the man at whom it should turn out to be pointing might suffer considerable uneasiness on seeing it, it might be well to destroy the plate without attempting to identify him. E and C, after a minute's thought, both agreed that this would be the wisest course, and it was accordingly done. Patrick did not wish to feel that he might be in any way responsible for causing anyone uneasiness or harm, such as might well result from such a picture.[1] Accordingly the three returned to the other room, and explained the situation to the others, who, though obviously disappointed, did not condemn the course taken.

"This concludes the account of these first three meetings. We wish to record that all through the meetings Patrick desired and requested us to take all and any precautions we thought fit, to satisfy ourselves that he introduced no trickery.

"In conclusion, we, the undersigned, declare this to be an accurate account of the occurrences to the best of each man's individual knowledge. While not committing ourselves to any statements as to our belief or disbelief in the genuineness of the phenomena observed, we maintain that the greatest possible care was taken to prevent any possibilities of trickery; and we consider that, barring the possibility of Patrick having an accomplice among us, the evidence should be accepted as proof of the genuineness of the phenomena observed."

This is followed by their seven signatures. E added afterwards a paragraph of his own as to the interpretation of the word "accomplice." E was much the acutest observer and the most obstinate sceptic of the seven: I think he suspected D of being in some way my accomplice; some of the others suspected him of being a medium. He certainly was not an accomplice—for I never had one in the room; he may be a medium for aught I know—but I should doubt it.

At the next meeting an eighth investigator appeared, and everybody seemed to be suspecting everybody else, and not merely the photographer. The plates were bought at a different shop, chosen by lot, by a committee of four; and the packet was at once done up with much red tape and green sealing-wax. When they had finished I requested to be allowed to put my seal on it too, to assure myself that *they* were not playing any tricks! My request was granted. I now quote the report of the meeting:

"The box of plates was produced by C, and the seals were found to be intact. The box was taken into the dark-room by A, and a plate-

[1] This may have been true, but was certainly not the principal reason that I had to have the plate destroyed! I had over-exposed my spirit, and I feared this plate would not bear closer inspection (I did not sign the minutes of the first three meetings).

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carrier—which had been previously examined by several of those present—by B. The seals were broken, and a plate was loaded in the presence of A, B, D, and E, who signed their names on stamp-paper fixed to the back of the plate.

"In attempting to fit the slide into the camera, the plate was accidentally exposed. It was discarded, and another plate signed and loaded by A, C, E, and Patrick. C then locked the plate away in a drawer, and kept the key until the slide was required for the photograph."

[Table-turning was then indulged in; A, C, E, and myself not taking part. The usual type of answers was obtained from the table; I omit this part of the report. During the table-tilting the photograph was taken under precisely the same conditions as at the last meeting.]

"The plate was developed by Patrick; A, C, and E watching. An extra pair of eyes and the upper part of a nose developed, apparently on the wall; they were brightly illuminated, from the same position as the other figures. They were larger than those of the other members of the group, and were over B's head.

"We consider that this is a true account of what occurred. Barring any very abstruse and elaborate explanation, it would seem that the photograph is undoubtedly genuine."

Then follow the signatures. As they made *me* sign the report on this meeting, I had to see that it was worded rather carefully, particularly the last paragraph; the report *was* true, so far as it went; and the explanation of the result *was* rather elaborate; so I felt I could safely sign it.

I did not hold another photographic *séance*, but being emboldened by success, introduced at the next meeting "a medium from London." (As a matter of fact he came from Trinity, but I had ascertained that nobody knew him, which was the important thing.) After suitable preliminaries we all sat round a large table in semi-darkness, holding hands. When the medium had arranged "the balance of the circle" to his liking, he proceeded to go into a trance, when queer things began to happen. A candlestick was seen to slide along the mantelpiece and crash into the coal-box, taking a framed photograph with it; sounds were heard from a small cupboard; the window-curtains were parted; several people saw spirit forms and eyes; and one was favoured with a spirit touch. The medium's Egyptian control, Nemetra, gave us wonderful accounts of life in Memphis in the days of the Pharaohs—accounts which certainly made up in picturesque detail for anything they lacked in historical accuracy.

Unfortunately this meeting was not a complete success, as, immediately the show was over, our ever-curious geologist E began hunting about the floor, and discovered a small loop of fishing-line (being a post-war fishing-line, the spirit forces had broken it). He

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could not very well announce his find at the time, as the medium was not yet roused from his trance, and the others were busy feeling his pulse, fanning him and administering cold water!

By this time the results of the photographic *séances* had become pretty generally known, and the undesired notoriety brought so many requests to allow other visitors at the *séances* that it became evident to me that the proceedings must terminate. So the next morning, after seeing E, I told him and the others that the whole thing had been a hoax, and that the photographs were frauds. I should like to add that with one exception they took it extraordinarily well, particularly when I explained what had been my object. They were still quite in the dark about *how* the photographs had been done, particularly when I told them that there was no accomplice among them.

All the photographs were obtained by the general method of double exposure and substitution, the substitution being effected at a different point on each occasion; the methods used, or slight variations of them, are all described in the section on "Methods of Fraud."

Now I maintain that the conditions imposed upon me were as strict, or stricter, than any professional medium allows. If an amateur photographer but little practised in sleight-of-hand can under such conditions deceive intelligent observers—not once, but several times over—how much easier will it not be for the professional spirit photographer, who makes such frauds his business?

C.—Internal Evidence of Fraud

Since spiritualists claim that the presence of invisible spirits may be detected by photography, it seems reasonable to inquire how far this is compatible with established physical facts. If a plate is wrapped in paper and submitted to "spirit influences"—whatever these may be—never being exposed in a camera at all, and on development shows faces or writing, I personally can only find one explanation—trickery. But if a plate is duly exposed with camera and lens, and unseen faces appear on development, the matter is not quite so simple. For it is well recognised that the camera may record what is invisible to the eye; invisible stars are detected by the photographic plate, and anyone who has examined a nebula or comet through a telescope, after seeing a photograph of the same object, realises this fact to his disappointment. Similarly a can of hot water may be photographed, by a long exposure, in a perfectly dark room; and another well-known instance of a similar phenomenon is Sir Robert Ball's story of photographing some writing on the side of the "Great Eastern," years after it had been painted out and rendered invisible.

Light, as is well known, is now regarded as consisting of waves in the ether. Ether waves are known to exist over a very large range of

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wave-lengths; some are comparatively long waves, some are short. The properties of these waves depend upon their wave-length; those visible to our eyes, which we call "light rays," form only a small section of the complete scale; comparing them with sound waves they correspond to approximately one octave of the whole musical scale. Ether waves of greater or lesser wave-length than light, *i.e.*, of lower or higher octaves, have very different properties. Radiant heat and ultra-violet rays are the ether waves nearest in wave-length and properties to light; X-rays and the waves responsible for wireless telegraphy appear to be similar waves further removed along the scale of wave-length.

Now in order to photograph an invisible object we require rays that (*a*) affect a photographic plate; (*b*) are capable of refraction by a lens; and (*c*) are invisible to the eye. The properties of the principal known rays concerned may be summarised as follows:

	Effect on Plates	*Refracted by Lenses*	*Visibility*
Infra-red (heat) rays	v. slight	Yes	No
Light rays	affected	Yes	Yes
Ultra-violet rays	strongly affected	Yes	No
X-rays	affected	No	No

It appears, then, that ultra-violet rays are suitable for our purpose; infra-red rays, if present in an amount sufficient to affect a photographic plate, would make themselves very evident as heat, and may therefore be ruled out.

Ordinary daylight contains ultra-violet rays, as also does the light of the arc lamp and magnesium flash; lamplight, gas-light, and the ordinary electric light, are comparatively deficient in them. But are we to assume that the spirit form is dependent on finding suitable rays in the surrounding ether, or can it produce its own? Perhaps some spiritualist will tell me. This is a point of some practical importance in examining a reputed spirit photograph; for if the spirit is self-luminous its features will be evenly illuminated and without shadows, nor will it cast a shadow on the sitter or background, but rather the reverse. If, on the other hand, the spirit is dependent on the presence of ultra-violet rays from other sources, which it can reflect, then the spirit in the photograph will appear to be illuminated from the same point as the sitter,[1] and by absorption or reflection of the ultra-violet actinic rays which would otherwise have passed on, will cast a shadow on the background. Being a shadow cast by the

[1] Unless, of course, there happens to be in the room a source of ultra-violet rays other than the ordinary illuminant by which the photograph is taken but which does not emit visible light rays. This possibility may be disregarded for practical purposes.

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removal of the ultra-violet rays only, it will of course appear as such in the photograph, but be invisible to the eye.

So if a spirit photograph is to be classed as possibly genuine, the spirit may either appear self-luminous and cast no shadow, or may appear to be illuminated from the same point as the sitter, and cast a shadow on the background, if the latter be of a suitable nature to show it. But on examining a collection of spirit photographs taken by various professional mediums, we find that as often as not the spirit and sitter are lighted from opposite sides ; or that a spirit face with a well-marked shadow on one cheek throws no shadow on the background. If our reasoning be correct, we can at once write such productions down as frauds. The photographs I produced at my Cambridge *séances* show both these faults ; two of them have the spirits lighted from the opposite side to the sitter, and one has the spirit lighted from the correct side but throwing no shadow, whereas the sitters throw clear shadows on the wall behind. In the other photograph I managed to get both the lighting and the shadow of the spirit correct ; but in order to get the shadow I had to photograph the background with the "spirit" ; hence when the sitters were photographed on the same plate there was a double background, which necessitated a rapid destruction of the plate !

Of course the average medium does not consider these points at all ; his sitters are usually satisfied with anything they can get, so why should he worry ? But an intelligent observer examining a number of spirit photographs with regard to these points will quickly satisfy himself that the majority of them *can* only be frauds.[1]

There are a number of other points by which a spirit photograph may betray its method of production without reference to the conditions under which it was taken. Many spirit extras are simply copies of existing photographs, which are usually camouflaged in some way. Draperies may be substituted for the hair, or the features slightly retouched. A common method is to reverse the original photograph, right for left ; a number of Hope's productions were recently published in a monthly magazine, and alongside them life portraits of the "spirits," the letterpress emphasising that, though undoubtedly the same face, they were different photographs. On examination with a mirror, however, the photographs were seen to be identical, and careful measurement of the faces showed the proportions to be exact. In the

[1] *Note.*—Some believers in spirit photography will dissent from this view on the ground that experiment has shown that when a photograph is taken the extra is not produced by the reflection of ultra-violet light from an "object" (partial materialisation or the like) but by the use of a "psychic transparency" applied to the plate and exposed to "spirit" light. With the first part of this we cordially agree, but the hypothesis of the "psychic transparency" seems to be no more than a resolute attempt to evade the plainest indications of fraud. *Vide infra.*—[ED., P.R.Q.]

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photographs more recently published by Mr. Bush, who laid a trap for Hope into which the latter appears to have fallen, the spirit was not reversed, nor was even the rather peculiar attitude of the head in the original photograph altered. A little spirit drapery was added round the face, and the whole thrown slightly out of focus; it is really a most clumsy piece of work, and should deceive no one.

In some spirit photographs produced by double exposure there is a double background, as occurred in my own photograph referred to above. There may be either two different backgrounds, or a double outline of the same background; in either case the "spirit's background" is usually fainter than the "sitter's background," and shows through the darker parts of the sitter. Sometimes attempts are made to retouch these appearances on the negative, and many spirit photographs show clumsy brush or pencil work, which must immediately stamp them as frauds.

Attempts are sometimes made to obliterate other tell-tale marks, such as a piece of a spirit's hat or collar, which has accidentally got on to the plate. Other mediums, however, are less particular, especially in America, and produce their spirits with ordinary hats, collars and ties. But as a rule only spirit robes are permitted, apparently made of butter muslin not quite in focus. Hands are often present: I have seen a case in which the position of a spirit hand would have necessitated a many-jointed arm about four feet long; but perhaps spirit arms *are* like this. One spirit extra I have seen has two hands, but both appear to be left hands—evidently a left-handed spirit.

Frequently, again, careful examination shows that spirit extras are not photographs at all, but resemble wash drawings. This gives the clue to their origin, for several of the methods described in a preceding section produce a result of this kind. It has been several times pointed out that spirit extras in some cases show the characteristic dots produced by the half-tone newspaper illustration process; if the medium cannot obtain a real photograph of the required spirit, he has to copy a newspaper reproduction. If he is clever, he can eliminate these process marks by printing in his spirit slightly out of focus; but very often he does not take the trouble.

In many, perhaps in the majority, of spirit photographs produced by professional or semi-professional mediums, a critical observer with practical photographic experience can point out some such definite evidence of fraudulent manipulation. In many other cases, where no one particular point can be singled out as indicative of fraud, minor points of suspicion are noticeable, which taken together leave little doubt of the nature of the picture. But photographs *can* be prepared by purely mechanical means, especially if no kind of test conditions are employed, which will contain no internal evidence whatever of manipulation. By carefully combining enlarged positives, for instance,

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and re-photographing the whole, results can be produced which will defy the most critical examination. But such photographs are seldom produced, even when the medium is given practically a free hand.

IV.—Spirit Photographs Obtained by Amateurs

(C. Vincent Patrick)

Probably most people have heard, but seldom at first hand, of unexpected ghosts appearing on plates or films exposed by amateur photographers. On the rare occasions when such accounts can be traced to their source, one usually finds that there is some simple and evident explanation. Streaks and splashes of light on the plates are comparatively common, and are usually the result of the camera, slides, or dark-room not being light-tight; very strange results are sometimes produced in this way. I was once puzzled by a photograph which showed an arch, like a rainbow, across the sky, when it was quite certain that there had been no rainbow in the sky when the photograph was taken. When the result was repeated a few days later, the camera quickly came under suspicion, and was found to have developed a minute pinhole in the bellows. This was sealed up, and the rainbow did not reappear. Many unexplained markings on plates are certainly caused in this or similar ways; but only under very favourable circumstances could an extra face on the plate be so produced. Sometimes unexpected results are caused by an accidental second exposure; but the nature of such a photograph will quickly be apparent. The use of old glass plates may sometimes be responsible for similar results, as has been already explained. But authenticated cases of the appearance of unseen faces in photographs taken in the absence of a professional medium, and which do not show an obvious explanation, are few and far between. The classical example is that of the Combermere photograph, which was published in the *Journal of the S.P.R.*, and aroused much discussion and criticism.

A Miss Corbet took a photograph of the library of Combermere Abbey, Cheshire, on December 5th, 1891. She was alone at the time, and left the camera during the exposure, as it was a long one. She kept a note-book with records of her photographs, which afterwards showed that an exposure of one hour had been given, namely from 2 to 3 p.m. Unfortunately she did not develop the photograph till eight months later, and was then amazed to find a figure occupying a chair in a prominent position in the photograph. The figure was faint and transparent, the legs being quite invisible; the features were not recognisable; but the presence of a head, shoulders and arm was fairly plain. Inquiries were made, and it was found that not only

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was the chair in question the one Lord Combermere had been wont to occupy, but that he had died a few days before the photograph was taken, and was actually being buried some two miles from the Abbey at the hour at which the photograph was taken. The photograph was naturally shown to the dead nobleman's relatives, some of whom professed to recognise it as Lord Combermere. It was further pointed out that he had lost the use of his legs in an accident some three weeks before his death, and that the spirit figure was correspondingly legless!

The most important contribution to the discussion which followed was made by Sir William Barrett, who demonstrated that the result could be duplicated by taking a several minutes' exposure of a chair, in which someone was seated for a part of the time. The sitter would naturally not keep quite still; hence the outlines would be blurred and the features indistinct. Sir William published a photograph which he had obtained in this way, reproducing the features of the Combermere photograph, even to the leglessness. He suggested that someone, possibly one of the four men-servants in the Abbey, had entered the library during the prolonged exposure. He had sat down in the chair for a minute or so, when, noticing the camera, he beat a retreat. The photograph showed double outlines to all the sharp edges, indicating that the camera had been moved slightly during the exposure, and suggesting that someone had entered the room and jarred it. As it was eight months after the event that the photograph was developed, it was impossible to ascertain whether anyone *did* actually so enter the room. In any case it was a remarkable coincidence, but there is no proof of it being anything more.

A somewhat similar case is recorded by Podmore. The photograph was being taken, this time, in a chapel. On development a faint face was seen framed in a panel. This was described as being the likeness of a friend of the photographer's who had recently died—"a handsome, melancholy lad of eighteen." Another critic thought that the face was that "of a woman of thirty"; it must have been very indistinct. It may well have been caused in the same manner that was suggested for the Combermere photograph; a visitor to the chapel standing in the field of the camera for some moments, probably not realising that an exposure was in progress.

Several accounts have been given by amateurs of seeing spirit faces develop, only to disappear again on fixing; one such is published in Vol. VII. of the *J.S.P.R.* These are evidently of a subjective nature, the finished negative showing no evidence of any abnormality. If any reader of this article knows of any case where an "extra" has been obtained in the absence of a professional medium, and where the plate can be produced, I should be very grateful for particulars.

Experiments have on several occasions been made by amateurs, deliberately trying for spirit extras, and exposing scores of plates,

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usually without success. The unsuccessful attempts of Russell, Beattie, Dr. Williams, and more recently Dr. Pierce, have already been alluded to. Experiments of rather a different nature have been carried out by a Frenchman, Dr. Baraduc. His most interesting—if somewhat gruesome—result was a series of photographs taken over the death-bed of his wife, at the time of, and for some hours after, death. The negatives showed globes of light floating over the bed, which gradually increased in size and brightness, and coalesced in the later photographs. The circumstances certainly seem to exclude fraud, and it is very difficult to understand how the progressive series of photographs could have been obtained by accidental means, such as a pinhole in the camera. His results are very interesting, but need repeating by other experimenters; in any case, they have absolutely nothing in common with the conventional spirit photographs which show faces and figures.

V.—The Fairy Photographs

(C. Vincent Patrick)

The so-called "Fairy Photographs" recently published by Sir Arthur Conan Doyle and Mr. E. L. Gardner do not strictly come under the heading of "spirit photographs," but may not inappropriately be considered here. We have no evidence of the conditions under which they were taken; as Sir Arthur explains, such "rare results must be obtained when and how they can." We have therefore to learn what we can from an examination of the photographs, or of their reproductions. At first sight they look like genuine untouched photographs; their general appearance is excellent, and if frauds, they are certainly good ones. On examining them more carefully, however, a considerable number of points are found requiring explanation. Some of these have no doubt been noticed by different observers; the principal criticisms of the different photographs are these.

"*Iris and the Dancing Gnome*" shows some very strange lighting. Examining Iris's hat, we find the strongest light is falling, probably through a gap in the trees, from above and a little to the right; the shadow behind her arm, and the lighting of the fingers, confirm this. The gnome stepping up on to Iris's knee should therefore cast a shadow upon her white dress, below and to the left; but the photograph shows no trace of any such shadow. On the other hand, the gnome is lighted mainly from the *left;* this is plainly shown on the conical cap and the right upper arm. Apart from these discrepancies, which alone are quite sufficiently damning, several other grounds for suspicion are evident. The whole photograph is much too carefully arranged to be

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the snapshot it is represented as being. The black legs of the gnome are contrasted against the white dress of the girl; the lighter body, face and wings are outlined against the shadows under the trees; the dark cap is brought with one edge against a wing, the better to show it up, while the other edge catches the light. A snapshot would indeed be fortunate in securing such an admirable arrangement! The same thing is very noticeable in the other three published photographs; the pictorial arrangement of the figures and background is much too good to be the result of chance, and suggests careful posing.

This gnome photograph was taken under the shade of trees, we are told, at four o'clock on a September afternoon which was not sunny; an exposure of $\frac{1}{50}$th of a second was given on "Imperial Rapid" plates, using a "Midg" quarter-plate camera. With the largest stop in this camera an exposure of at least ten times that stated, *i.e.*, $\frac{1}{5}$th of a second, would be needed to give a fair negative under these conditions; $\frac{1}{2}$ to 1 second would probably be more correct. The photograph in question certainly shows signs of under-exposure; but under the conditions stated one would expect little more than a silhouette of the white dress and of the sky showing through the trees. Something is evidently wrong here.

The gnome's proportions are certainly not human, as are the fairies' in the other photographs; he rather resembles the familiar "Brownie" of the Kodak advertisements. Though stepping up on to the girl's knee, he is noticeably looking away from her, and at the camera, which is very unnatural and likely to cause him a tumble! Criticism has been directed against the girl's hand, but this is quite a common photographic distortion of a hand held rather near the camera. In my copy, however, the elbow appears rather peculiar.

The other points, taken together, can leave no possible doubt that the photograph is a fake. It could have been produced by making a positive enlargement from the negative of Iris on one of the bromide papers specially prepared for working up. The gnome would then be sketched on this—he certainly resembles a sketch more than a photograph—and the whole would then be re-photographed on to a quarter-plate. No doubt an entirely satisfactory result would not be secured at the first attempt; in fact, Mr. Gardner tells us that "other photographs were attempted, but proved partial failures, and plates were not kept." Surely such extraordinary photographs, even if partial failures, would be kept—if they did not show something that was not intended! We have known plates to be destroyed on other similar occasions, and for similar reasons.

"*Alice and the Fairies*" is of a rather different nature. The lighting of the fairies is badly wrong; they are brightly illuminated from a point behind the camera, whereas Alice is less brightly illuminated, and from the left-hand side. Sir Arthur, in his article,

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points out that this is accounted for by the "fairy psychoplasm" having a "faint luminosity of its own." To appear brighter than the sitter, photographed by $\frac{1}{50}$th of a second exposure at three o'clock on a sunny July afternoon, the fairies would have to resemble in luminosity a battery of arc lights! The photograph appears to have been produced by pasting the "fairies" on to an enlargement of the original photograph of Alice, and then re-photographing the whole. The fairies could be obtained by taking posed photographs of children suitably dressed; these would then be carefully cut out from their backgrounds and pasted on to the original enlargement. The points of internal evidence on which this statement is based are as follows:

1. The very sharp (cut) outlines of all parts of the fairies. This is particularly noticeable in the outline of the dress and hair of the third fairy (counting from the left); compare this with the soft outline of Alice's hair, against a similar background.

2. The same fairy's forearm is much brighter than Alice's wrist, at the point where it crosses between it and the camera. Assuming that both were equally white, and lighted from the same source, the one further from the camera would normally photograph a little the lighter.

3. Fairies two and four appear to be photographs of the same model, the wings being exchanged for the pipe. Note the similarity of the attitude of the legs, and of the shape of the tail of drapery hanging down behind.

4. With the exception of one foot of each of these fairies, which appears somewhat unnaturally amputated, *every part of the fairy figures is in front of the sitter and background.* This applies to all four photographs, and is of the utmost importance; superimposing the fairies on the original photograph in the manner described must of course produce this effect.

5. One would have expected to see some blurring due to movement, in the fairies' wings and feet at any rate, with a $\frac{1}{50}$th of a second exposure at a distance of four feet. None is visible in the reproduction.

The two more recently published photographs are very similar to "Alice and the Fairies," and the same general criticisms apply. "*Alice and the Leaping Fairy*" again shows the fairy illuminated from a point behind the camera, whereas Alice is illuminated from the right side. (Note that her right cheek, facing the camera, is in shadow.) Fairy shows no movement-blurring, and comparison with instantaneous photographs of jumpers shows the attitude to be most unusual. On tilting the photograph a little to the left, the fairy appears to have been posed kneeling on the left knee, the support being afterwards cut away, and the cut-out figure applied to the enlargement of Alice, in a slightly different vertical axis.

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"*Iris and Fairy with Harebells*" shows similar features. Notice, again, the different lighting of fairy and Iris; the hard outline of fairy's hair, so unlike Iris's in the same print; and the careful way the fairy has been placed to secure a well-balanced picture—scarcely a random snapshot! The harebells seem too large in comparison with the hedge-leaves at the same distance from the camera. They may be the result of combining yet a third photograph; or the actual harebells may have been placed on the enlargement and re-photographed with it.

An artist to whom I have shown this photograph, together with the full-length photographs of "Iris" published with the earlier article in the *Strand Magazine*, is of opinion that the fairy has the same figure and features as Iris, and, in fact, may very well be a photograph of Iris herself, attired in a bathing-dress and some butter muslin, and with the addition of wings! The photographs of Iris show a rather characteristic poise of the head, which is also seen in the fairy. This is only a suggestion, however; the photographs are too small for certain identification. In any case, the fairy figure is certainly of human proportions.

These photographs have attracted a good deal of attention, and seem to have been accepted as genuine in some quarters. No doubt much reliance has been placed on the statement of one experienced photographer, Mr. Snelling, that they show no evidence of manipulation, disregarding the adverse criticisms of several other photographers to whom they were shown. I consider that there is not the slightest doubt that they are fakes, simply on the internal evidence they provide, and I have endeavoured to explain the principal points on which this opinion is based.

VI.—The Reliability of Witnesses

(W. Whately Smith)

The reliability of witnesses is a crucial question in the study of psychical phenomena and has for long been a bone of contention between spiritualists and their critics. If honesty, care, and intelligence alone sufficed to make a man's testimony reliable the whole range of spiritualistic phenomena, including spirit photography, might long ago have been taken as proved beyond all possibility of doubt. But this is very far from being the case, and although it is never pleasant to express flat disbelief of the accuracy of people's statements, the Psalmist's dictum that "all men are liars" should be graven on the heart of every psychical researcher, especially in the case of those who attempt to investigate "physical" phenomena.[1]

[1] Readers should refer to Mr. E. J. Dingwall's interesting article on "Magic and Mediumship" in the last number of this paper.

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I do not propose to repeat the obvious platitudes about the ease with which conjurers can deceive their audiences, but I should like to emphasise the fact that such differences as exist between the circumstances in which conjurers and mediums work are uniformly in favour of the latter as regards the minor manipulations necessary for the production of photographic phenomena. (One is not, of course, concerned with elaborate "stage effects," but rather with small matters like the substitution of one plate for another or the distraction of the sitter's attention while the required extra is impressed upon the plate.) The conjurer's audience *knows* that it is a trick; the medium's does not. Even the most hardened sceptic will probably have a lingering doubt in his mind as to whether there may not possibly be "something in it" after all. This is all to the medium's advantage, and it must be remembered that not only does he work for much of his time under lighting conditions which are peculiarly favourable to fraudulent manipulation, but also that the great majority of his sitters start with a considerable prepossession to the effect that they are encountering something inexplicable.

But these observations must, I suppose, have occurred to all who have considered such matters at all impartially, and however relevant they may be they will never by themselves prevail against what we call "the evidence of our senses." No amount of general considerations of this kind will deter the credulous from accepting the *prima facie* indications of a "successful" *séance*. The only hope of preserving the public from the depredations of these swindlers is to show that the "evidence of the senses" is not worth twopence unless backed by special knowledge of the relevant technique.

One would think that anyone who reads Mr. Patrick's admirable account of fraudulent methods and of his experiments in their application will feel chary of claiming that he has wholly eliminated the possibility of fraud from any photographic *séance* which he has attended. But there may be some who will still say: "No doubt these fraudulent methods can be and have been employed, no doubt many people would allow a medium to substitute plates under their very noses, or to touch them. But when *I* went to such-and-such a medium I am *certain* that the plates were never out of my possession, that he never had a chance of touching them . . ." and so forth.

Of course, some of the methods described by Mr. Patrick do not involve touching the plates at all. It would not be at all impossible for an artist in such work to allow a sitter to use his own plates, camera, slides, dishes, and chemicals in his own studio and dark-room, to load, unload, and develop the plates himself without their ever being touched by the "medium" and yet to produce a perfectly good extra.

But I will let that pass and confine myself to the question of whether the kind of positive statement outlined above is really worth anything

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at all. This question was answered once and for all in the emphatic negative by the classical experiments of the late Mr. S. J. Davey in "Slate-writing," which are fully described in the *Proceedings of the Society for Psychical Research*, vols. iv. and viii.

These experiments are not nearly so widely known as they deserve to be, but it is not too much to say that no one who has not read, marked, learned, and inwardly digested them is competent so much as to begin to talk about the genuineness of spirit photography; unless, of course, he happens to have acquired a knowledge of trick methods and the scope of deception by other means—such as Mr. Patrick adopted in his experimental work!

Very briefly, the story was as follows: Mr. Davey was an amateur conjurer of some skill who set himself to imitate by trickery the performances of Slade, Eglington, and other exponents of "slate-writing" phenomena. In this he succeeded to admiration—so much so that certain spiritualists characteristically insisted that he *must* be a very powerful "medium"! He scrupulously denied himself the advantage of claiming his results as supernormal, but in spite of this found no difficulty in imposing on his sitters. The latter were encouraged to take every possible precaution against trickery and were instructed to write the most careful reports of what occurred.

A number of reports were thus obtained from men and women of unquestionable intelligence and acumen which, if they had been even approximately accurate, would have established the supernormality of Mr. Davey's phenomena beyond any peradventure. But comparison of their reports with the known and recorded procedure which actually took place showed the most astonishing discrepancies. Omissions and distortions of the first importance were abundant and the experiments proved to the hilt that, for phenomena of this kind, the reports of untrained witnesses are, in general, not worth the paper they are written on.

I wish that space permitted me to quote, in parallel columns, some of these Davey reports and some of those given by witnesses of photographic *séances* so that my readers could see how very similar the circumstances are.

But I must content myself with pointing out that whereas in the one case everything turned on whether the "medium" had any chance of substituting or tampering with *slates*, so in the other it is a matter of whether there has been any chance of substituting or tampering with *plates*. The reports of intelligent witnesses proved worthless in the one case, and it seems reasonable to suppose that they are no more valuable in the other.

So, to anyone who thinks that in the mouth of two or three witnesses the genuineness of spirit photographs shall be established, I would say, "Go home and invest a few shillings in the *Proceedings of the Society for*

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Psychical Research, vols. iv. and viii.—it will be more profitable than the same amount laid out in photographic *séances*—and when you have carefully read their account of the Davey experiments in conjunction with Mr. Patrick's paper, see whether your confidence in spirit photographs is as strong as ever ! "

I have drawn attention to these experiments of Mr. Davey elsewhere and I am sorry to be obliged to insist on their importance again. But until people learn that the reports of uninstructed observers—however acute in other respects—are utterly unreliable, the fraudulent medium will flourish and the unsuspecting public will be robbed and deceived.

VII.—The Value of Recognition

(W. Whately Smith)

Believers in spirit photographs generally consider that they are playing their trump card when they point out that thousands of "extras" have been definitely recognised by sitters as portraits of their deceased friends or relatives. But this card, impressive as it looks, will not really take the trick. If it could be shown (i.) that a given "extra" was *unmistakably* recognisable as a portrait of a deceased—or even of a living—person, and (ii.) that the medium concerned could not possibly have obtained a likeness of that person to work from, then we should be obliged to attach great weight to this factor, even if the conditions were not otherwise such as to exclude fraud. For such a result could not be fraudulently produced. But in spite of the perfectly honest assertions of many investigators, it seems very doubtful whether this state of affairs has ever been realised.

There are two ways in which evidence based on recognition may be defective.

First, the recognition may be perfectly well founded, but the "extra" may have been derived from an existing photograph of the deceased; second, and more frequently, the recognition is illusory and exists only in the sitter's imagination.

As regards the first of these points, it should be remembered that most people are photographed at one time or another, some of them frequently, and that it is not very difficult to obtain a photograph of a given person if one goes about it in the right way. A spirit photographer with an extensive *clientèle* will find it well worth his while to take the necessary steps to secure photographs appropriate to at any rate his more regular sitters, from whom, in the course of a few *séances*, it will not be difficult to glean enough information to put him on the right track. It is, of course, particularly easy if they happen to be well-known people, photographs of whose relatives may have appeared

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from time to time in the press. But although this method may sometimes be employed where circumstances lend themselves thereto, or when there is some reason which makes a first-rate "test" especially desirable, I do not think that it is responsible for more than a small percentage of the recognitions which are claimed.

By far the greater proportion appear to be due to the operation of subjective factors which lead the sitter to "recognise unmistakably" an extra which bears no more than a vague general resemblance to the person whom it is claimed to represent.

Recognition can scarcely be assessed objectively; it is essentially a subjective affair, and as such liable to all the distorting factors which affect every mental process.

If I had to summarise the whole of modern psychological doctrines in one line I should quote the popular saying, "The wish is father to the thought." The whole of our mental activity, our thoughts, actions, opinions, and dreams are moulded by wishes or innate tendencies of one kind or another. Often, of course, these conflict with one another; but that does not alter the principle involved.

I believe that the great majority of the recognitions of spirit photographs are determined either by the definite wish to find evidence of survival or by the vaguer desire to obtain "positive" results of some kind, for positive results are always pleasanter and more satisfactory then negative.

To attempt a full discussion of the psychological process of recognition in general would take us very far, but I think it may be conceded that it is based on some kind of a *comparison* between the object ("extra") actually perceived and a visual image of the person concerned which is evoked for the purpose. But visual images are very plastic, so to speak, as anyone who tries to visualise the face of a friend accurately will be able to verify for himself. The general impression may be clear enough, but details of proportion and the like are very elusive. We all know, too, how faces get distorted in dreams (though by somewhat different causes from those which we are considering here), and it may well be that it is for reasons of this kind that recognition is so often unreliable even in ordinary life. Which of us has not been struck by the likeness of a press photograph to someone whom we know, or who has not been momentarily misled by the slight resemblance of a passer-by to his contemporary inamorata? In my judgment it is entirely in conformity with modern psychological views, or, indeed, a necessary consequence of them, to suppose that the process of recognition is as subject to the influence of emotional wish-tendencies as are all the other mental processes which have been studied.

This supposition is immensely strengthened by a consideration of the actual material dealt with. I have seen a good many spirit

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photographs, and I am sure that those who have seen more will agree with me that the number which are clear enough to be *capable of definite recognition at all* is extremely small. They are almost invariably blurred, out-of-focus, indistinct things, frequently so covered in "spirit drapery" as to leave no more than two eyes, a nose and a mouth visible, while the shape of the head and the hair are quite indistinguishable. In the great majority of cases it seems to the unbiassed observer nothing short of absurd to claim that such vague and indefinite effigies can be "unmistakably" recognised. And when it comes to recognition being instantly claimed *from the negative* and before a print is made—as in a case I heard of not long ago—one almost gives up hope!

One need hardly point out that, although a medium who merely trusts to luck will probably score a good proportion of "hits" by ringing the changes on a few common types of face, he can greatly increase this proportion by a little adroit "pumping" of the sitter which will give him a guide to at least the general type of face expected, thus enabling him to "deliver the goods," at any rate approximately, at the next *séance*.

It should also be remembered that in everyday life recognition is a much more sketchy affair than might at first be suspected. Experiments have shown that in reading, or in viewing a drawing, we do not take cognizance of each individual element; on the contrary our attention flits, so to speak, from point to point, skipping altogether the intervening matter. We thus obtain an outline or skeleton impression which we fill up from our own resources. We actually notice a few salient features and interpolate the rest; hence, for example, the well-known difficulty of "spotting" mis-prints in proofs. This process is perfectly satisfactory for ordinary purposes such as reading, and seldom results in our misinterpreting the symbols before us, and when it does the context usually puts us right. But in dealing with spirit photographs the context, if there can properly be said to be any, is much more likely to put us wrong. The "salient features" which "leap to the eyes" are, in this case, those which suffice to locate a face as belonging to a certain general type, while the details which we fill up for ourselves are just those which are necessary for the identification of a particular individual. Consequently, false recognition is easy provided the general type is all right. The "beauty" is emphatically "in the eye of the beholder." As "M.A. (Oxon)," a famous spiritualist and a believer in spirit photographs, well said:

> "Some people would recognise anything. A broom and a sheet are quite enough to make up a grandmother for some wild enthusiasts who go with the figure in their eye and see what they wish to see. . . . I have had pictures that might be anything in this or any other world sent to me, and gravely claimed as recognised portraits; palpable old women authenticated as 'my spirit brother, dead seventeen years, as he would have been if he had . . .' etc."

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But, as usual, the empirical test of experience is the best. Considerations such as those outlined above may be valuable in establishing *a priori* probabilities, but it is far more important to ascertain whether *as a matter of fact* people actually do make false recognitions with any frequency. The answer to this has already been given by Mr. Patrick in his account of the Buguet case above.[1] The most striking feature of the case, as he rightly points out, was the way in which witnesses swore to having "unmistakably recognised" the extras they obtained, *and stuck to their recognitions in spite of Buguet's own confession of fraud and his description of the methods employed.* In the face of this sort of thing, who will be bold enough to maintain that the recognition factor can be assigned any appreciable weight ?

VIII.—Recent Literature

(W. Whately Smith)

Recent contributions to the literature of spirit photography are not very numerous. I may first mention the very thorough exposure by Dr. Walter Prince of the Keeler-Lee-Bocock photographs; this appeared in the *Proceedings* of the American Society for Psychical Research, vol. xiii., part II, March, 1920. Keeler is a photographic medium who has practised in the United States for a number of years. For the benefit of Mrs. Lee he produced, at a price, a long series of "spirit" photographs purporting to represent the deceased Mr. Bocock in a variety of situations. Test conditions were either wholly absent or absurdly inadequate, and the photographs are, on internal evidence alone, so palpably fraudulent that it is surprising that they were ever accepted at all. The most obvious indication of fraud is the fact that through a whole long series of photographs Mr. Bocock's facial angle remains the same and identical with that of one of the only two extant photographs of him, no matter what his posture may be or on what occupation he may be represented as engaged. This circumstance clearly points to the use of a single photograph of Mr. Bocock as the basis of all the fakes. The case is not of sufficient importance to be worth discussing at length, but it is an interesting example of the art of critically studying internal evidence and of the almost incredible effrontery of fraudulent mediums.

More important is Mr. Edward Bush's "Spirit Photography Exposed," a small pamphlet published by the author as a contribution to the "Nehushtan Crusade." The object of the latter movement, of which one gathers that Mr. Bush is the leading spirit, is to show that all the physical phenomena of Spiritualism are fraudulent and to

[1] Cf. pp. 319-20.

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expose dishonest mediums. This last object, at least, is admirable, and Mr. Bush is certainly entitled to consider himself "one up" on Hope in the matter of spirit photographs.

Briefly, Mr. Bush laid a trap for Hope by writing to the latter under an assumed name and enclosing a photograph of a living person which he represented as that of his deceased son. Hope returned the photograph and gave Mr. Bush an appointment for a *séance*, which he attended, still under his assumed name (Wood). He duly received an "extra" in the form of the face portrayed in the photograph which he had sent,[1] together with a "psychograph" beginning "Dear friend Wood"! Any reasonable person will say that Mr. Bush has proved his case, that he laid a trap for Hope and that Hope fell into it as completely as possible. But an apologetic will doubtless be forthcoming from those to whom Hope's integrity is a cardinal article of faith.

Mr. Bush appears, I may add, to be almost wholly ignorant of fraudulent methods, but he has successfully made good his deficiency in this case by the exercise of a little diplomacy.

Finally, I must touch on certain articles which have recently appeared in the well-known spiritualist paper, *Light*. It is with considerable reluctance that I do so, partly because the candid expression of my opinion cannot fail to bring me into sharp conflict with a number of people whom I respect and with whom I would much prefer to remain in harmony, and partly because exigencies of space compel me to adopt a brief and almost dogmatic mode of treatment which is likely to provoke accusations of superficiality and prejudice. To thrash the matter out thoroughly would necessitate an interminable discussion to which circumstances do not lend themselves and which would certainly be fruitless.

For there is an attitude of resolute credulity which is quite proof against reason. I do not for a moment suggest that spiritualists enjoy a monopoly of this quality; they do not, for it is equally to be found in other quarters, among materialistic scientists and party politicians, for example, who constantly ignore the plain implications of evidence if the latter happens to conflict with their cherished beliefs.

But however hopeless the task may be, it seems none the less to be a duty to protest from time to time against this state of mind, of which several striking examples are to be found in the articles in question.

The conviction of the genuineness of spirit photographs is a conviction which is founded on purely negative evidence (namely, that

[1] *Note.*—This is a case where recognition is possible because (*a*) the "extra" and the original portrait can be laid side by side and directly compared, (*b*) careful measurements can be made of the facial angle and other characteristics, and (*c*) independent witnesses in any desired number can make the comparison for themselves.

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on very many occasions no fraud has been actually discovered), and held in the face of definite positive evidence (namely, the occasional actual discovery of fraud, as by Mr. Bush). But once formed it seems impossible to shake it, and just as always happens when emotion rather than reason is responsible for an opinion, every adverse indication is distorted into an additional corroboration. Just as a lover distorts the faults of his mistress into virtues—frivolity being regarded as gaiety, dulness as profundity and intransigeance as strength of mind—so the plain indications of fraud which leap to the eyes of the unbiassed student are gravely put forward as evidence of the wonderful ways in which the spirits work.

Thus in *Light* for January 29th I find advanced as "most evidential" the fact that whereas a plate which had been in the possession of the medium for several days showed an "extra," others, simultaneously exposed, which had *not* been in her possession, did not. (Note.—I am well aware that the plates sent to the medium for "impregnation by the psychic influence" were in a sealed packet which was certified intact when returned. But as anyone who has studied the subject of sealing knows, it is extremely difficult to devise a really fraud-proof method. Certainly no ordinary arrangement of strings and knots is reliable.)[1] Mr. Barlow, who writes the article, correctly argues that this result indicates that the lens of the camera used "had nothing to do with the formation of the psychic images which appear to have been printed on the photographic plate." But instead of drawing the obvious conclusion that, in spite of the sealing, the plate which showed the "extra" had been tampered with, he adopts the view that a "psychic transparency" is used, that this is at some period applied to the sensitised surface of the plate by spirit agency and exposed to spirit light! Comment is needless.

This theory of the psychic transparency is very popular just now and is being freely invoked to account for the obvious indications of fraud which even a superficial study of spirit photographs reveals. It is expounded at some length by the Rev. Chas. L. Tweedale (*Light*, January 22nd, 1921), who carefully describes the various indications which show clearly that the extra is often produced by a transparency of *some* kind, in terms which could be used almost without alteration as proof of the fraudulent nature of the productions. Thus the edges of the "psychic" transparency are said to be clearly visible on many of Hope's negatives, and we are told that "in some cases when 'the cotton-wool effect' is introduced, this ring of nebulous whiteness probably forms the edge of the transparency and . . . may conceal its use." Most astonishing of all, perhaps, is this author's credulity in accepting as genuine a spirit photograph showing two portraits of

1 Similar observations apply to "The Hunter Test" (*Light*, Feb. 19th.)

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the late Mr. Stead of which one was an exact duplicate of the other, but larger, and clearly showed the "screen effect" of small dots which one can observe in any printed reproduction of a photograph.[1]

Certainly there is ample evidence to show that some kind of transparency is frequently used in the production of extras (*Cf.* p. 326 above), especially by Hope, but there seems no reason to suppose that it is in any way "psychic." On the contrary, a friend of mine who enjoyed the privilege of a sitting with this artist not long ago tells me that when he went to focus the camera (as one is frequently invited to do), he clearly saw a wholly gratuitous face already projected on the ground-glass! Now either there was some kind of an objective apparition present in the camera's field of view which reflected light which only became visible after passing through the lens (which is absurd), or there was a transparency of some kind between the lens and the ground-glass. Of course it *may* have been a psychic transparency born before its time—one cannot possibly say definitely that it was not, but the more mundane inference seems very much the more probable. In fact, all this talk of The Problems of Psychic Photography is no more than an orgy of hypothetising from a mass of utterly unreliable data.

If only believers in spirit photographs would take the trouble to learn a little more about fraud and tighten up their control accordingly, instead of inventing strange hypotheses to bolster up their imperfect observations, we should hear less of photographic mediums and fewer people would be duped in this deplorable fashion.

IX.—Real Test Conditions

(W. Whately Smith)

To the last sentence of the preceding section someone will probably retort, "If only critics would stop talking about fraud and examine the phenomena at first hand, they would be convinced and we should have a chance of getting on with the war and finding out all sorts of interesting things." It is not really a fair retort, because it is always perfectly legitimate to point out sources of error in any experimental work without being called upon to repeat the faulty experiments oneself. But although all the evidence seems to me to point one way, I freely admit that I may be wrong and that genuine spirit photographs may be produced. If so, I should very much like to be able to convince myself of the fact and to give the utmost publicity in my power to any positive results I might obtain. But it is no use my attempting to do so under the conditions which normally obtain at a

[1] *Cf.* p. 338 above.

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photographic *séance*. I know, to be sure, a certain amount about fraudulent methods, and might, perhaps, be not quite so easy a prey as others who know less. But I am not so conceited as to flatter myself for a moment that I am a match for a really competent trickster. I know just enough to realise how very great an advantage the latter always has and how hopeless it is for any but the very elect to pit themselves against him. I do not imagine, as apparently do many worthy spiritualists who do not even know the first word about fraud, that my not extraordinary powers of observation are a match for the adroit and experienced medium, and I would no more back myself to spot fraud every time it was tried than I would back myself to win money off a cardsharper!

If one were allowed *real* test conditions, it would be quite another matter. But one is not. One is allowed to watch—when one's attention is not distracted by some natural-seeming incident; one is allowed to perform for oneself all kinds of operations which are quite irrelevant to the *modus operandi* of the trick; one is allowed to bring, if not always to use, one's own plates. But as already pointed out, the loopholes left for fraud are so numerous that it is vain to hope to guard against them all. In fact, the most suspicious feature about the whole of psychic photography is the fact that a procedure is insisted on which *must* give these innumerable loopholes and the obvious "safe" procedure is never, so far as I know, allowed at all.

If the account of fraudulent methods given above is referred to again, it will be seen that of the twenty-two varieties there noted, no less than eighteen depend on either (*a*) the use of the medium's faked camera or slides, or (*b*) the fact that the plates are loaded into slides, the slides placed in the camera, the plates removed from the slides and also developed "on the premises." The only methods to which this does not apply are the first of all and those involving preparation of the studio or dark-room and noted in Group II., Section A, to which might possibly be added the X-ray method. These three last can easily be eliminated by working in one's own or a "neutral" studio, while the former eighteen could all be prevented by using the investigator's own magazine or roll-film camera, loading it before the *séance*, taking it away immediately afterwards, and developing the plates in private without the medium.

I may very well be wrong, there may very well be methods which I do not know and cannot imagine which would get round even this degree of control, but I am inclined to think that this procedure would be "fraud-proof." Nothing less rigorous can be so, at any rate for a single-handed investigator, and even if several were present no confidence could be felt in the results unless (*a*) they were well versed in fraud, (*b*) they had planned and rehearsed everything in advance, (*c*) the medium were completely docile and willing to keep right away from

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the plates at the critical moments, and (*d*) the studio were known to be unprepared.

I shall probably be told that the conditions mentioned above as being apparently fraud-proof would automatically inhibit the phenomena as would insistence on full light in the case of telekinesis. I am well aware that many attempts to lay down test conditions in the past have rightly met with this retort; but apart from the fact that *if* the phenomena are such that real test conditions can never be applied then their genuineness can obviously never be established, I honestly cannot see that there is any essential difference between the conditions I suggest and those under which photographic phenomena *ostensibly* take place.

If and when these simple conditions are allowed (the plates being bought, of course, under circumstances which prevent collaboration by the vendor), I shall be prepared to admit that the scent is getting warm and that there may be something in spirit photographs after all. Until then I must reluctantly maintain my view that they are the most obviously fraudulent of all spiritualistic phenomena.

In conclusion we must confess that we have little hope of influencing convinced believers by the preceding discussion. It is just possible that here and there someone may realise that there is more scope for trickery than there appeared to be at first sight, may scrutinise procedure more carefully, may have the courage to distrust his own powers of observation, may even—if he is lucky—catch a swindler out. But this is unlikely. "Once convinced always convinced" seems to be the rule. "What matter if all appearances and all reasoning are against our beliefs? Did not Satan put marine fossils on the tops of hills to shake our faith in Genesis? Did not stupid spirits carelessly leave false beards and dirty muslin in the pockets of Williams and Rita—those wonderful materialising mediums? Do not even the greatest psychics resort to fraud when the Power fails?"

No! Some people's faith could never be shaken, not though we gave them two hundred methods of fraud instead of twenty and not though a medium were exposed a hundred times instead of but twice or thrice.

But it may be that there are some who still have doubts and still halt between two opinions. We hope that to these this paper may be of some service as a contribution to the evidence available for their study. It is also possible that it may in some measure act as an antidote to the unreliable matter which is now so freely disseminated and which does so much to bring Psychical Research and the better aspects of Spiritualism into undeserved disrepute.

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PSYCHO-PATHOLOGY IN RELATION TO PSYCHICAL RESEARCH [1]

By William Brown, M.A., M.D. (Oxon.), D.Sc. (Lond.), Reader in Psychology in the University of London, King's College.

I HAVE chosen the title "Psycho-pathology in Relation to Psychical Research" with some diffidence, realising fully the great importance of the subject. It is a little unfortunate that people who interest themselves in Psychical Research, either for or against, often tend to develop strong feeling on the subject and to become violent partisans. This is not only the case with those who believe in the results achieved, the validity of the messages, etc., that seem to come from the other side, who believe in the evidence of abnormal means of communication between living persons and those that have died, but also, on the other hand, the people who criticise Psychical Research show a tendency to do so in no qualified terms. They tend to go to an extreme that is apparent even in scientists of repute, who would be recognised as holding an established position in other departments of scientific investigation. When it is their lot, or their inclination, to glance at the work done by the Society for Psychical Research, and by others who are interested in the same lines of investigation, they seem dominated quite as much by prejudices as by common sense and sound reasoning. And in choosing my title, "Psycho-pathology and Psychical Research," I do not wish you to think that I intend to criticise Psychical Research or to attempt to depreciate it in any way. All that I shall attempt to do is to show that the facts and theories of Psycho-pathology, *i.e.*, of the science that investigates the various forms of mental disease, have a definite bearing upon problems of Psychical Research, upon the results it achieves, upon the methods whereby these results are obtained.

It would not be easy in a few words to define the scope of Psychical Research, but I gather that I should not be doing an injustice to that system of thought if I chose as its most characteristic problems: first, the problem of the extent to which one embodied mind can act upon another embodied mind otherwise than through the senses, either in the way of communication of thought or in other ways; second, of the

[1] A lecture delivered at King's College, London, on March 16th, 1921. Taken down from my *extempore* address by Miss E. M. Clarke, M.A., to whom my cordial thanks are due.—W. B.

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extent to which the embodied mind can foretell the future, can experience forebodings or premonitions, which eventually come true; and third, of how far the embodied mind can get into communication with disembodied minds, the minds of those who have already died, the minds that are to be presumed, either on the authority of religion or on the basis of fact, to be still existing elsewhere than in visible human form on this planet.

Many of the results obtained by investigators in Psychical Research have been obtained by the use of what are called mediums, *i.e.*, of people who appear to have, who may really have, a special power of receiving, recording and communicating messages from others. These mediums are often called clairvoyants, because the most characteristic power that they appear to possess is that of being able to see clearly, or fairly clearly, where for others there is no vision. As I said just now, they are responsive to influences that not only do not affect others appreciably, but of which others remain entirely ignorant, of which others would not for a moment suspect the existence.

The question arises how far the evidence gained through mediums is vitiated, if vitiated at all, by the mental state of these mediums; *i.e.*, (1) whether mediums, some or all, are to be regarded as perfectly normal people, in perfectly normal mental and physical health; (2) whether, if they are abnormal, if they *do* suffer from some degree of mental abnormality of a kind which would be regarded by a mental specialist as being identical with mental disease that he can observe in others less gifted, the messages that they purport to receive and communicate are thereby rendered more doubtful.

Before the war there were a good many mediums in existence, many who seemed to get results of different kinds more or less corresponding to independently observed fact, but during the war I venture to say that the number of mediums, potential or actual, was increased enormously. That at any rate was my experience while I was working in France. I very quickly came to the conclusion that the strain of exposure to shell-fire produced what can only be called mediumistic or clairvoyant powers in a very large number of soldiers; indeed, quite 15 per cent. of soldiers suffering from shell-shock were found, immediately after the shock, to be easily hypnotisable, and, in a large proportion of these cases, they were found to exhibit powers—characteristics—extremely similar to, if not identical with, the characteristics that one reads about and hears of as belonging to mediums; that is to say, not only could they be easily put to sleep, put into a second mental state which appeared to be quite different from their normal waking state, but, when they were in this state, they appeared to have telepathic powers, they appeared to have clairvoyant powers.

Let me take the powers of clairvoyance first. One found when one hypnotised a patient who had perhaps left the field of battle within

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the previous day or two that, if one suggested to him that he would be able to see what was going on somewhere else, say in France, or in England, and if one gave him a definite signal, told him, say, that one was going to put one's hand on his forehead and that then he would actually see what his father and mother were doing at home, again and again one got definite, positive results. That is to say, he would straightway appear to see something. He would feel that he was in England. In one case my patient felt that he was back in Liverpool, and found his mother and father in the evening at half-past six walking along one of the main streets of Liverpool towards the cinema. He was able to follow, and seemed to follow them at the normal rate, *i.e.*, the rate at which a person would walk. I had to wait for him to come up to them, and then until they reached the cinema house. He stood in the queue while they got their tickets, and followed them into the auditorium. Then the lights were turned down, the title of the play was flashed on the screen—he read the title and told me what it was—and then proceeded to see the picture unrolled. Later on he took a look round and saw what other people were there, recognised friends of his in the audience and told me their names. I begged him to try and draw his mother's attention to his presence. He did so, and showed signs of great disturbance, but said no, she did not take any notice—she could not see him.

In another case the patient found his mother washing, drying and ironing clothes. She was at the stage where she was ironing the clothes that she had already washed, collars among other things, and he walked into the room in thought. I asked him to try to speak to her, but at first he found that words would not come. After a little more urging he found he could speak to her, but she did not reply. I asked him to attract her attention in some other way, and so he took up a bundle of collars and put them out of the way when her back was turned. A moment later he told me that she had looked round and was surprised to find the collars had gone. He said that he was able to move things about in the room—a power that he did not possess at first but that he seemed to possess later.

In another case the patient wished to see his *fiancée* at home, and he appeared to be transported there, and found her reading in the grounds of the college where she was in residence. He looked over her shoulder and saw what book she was reading, and told me the title of the book—"An Egyptian Goddess"—and he proceeded to read a few words, all with an air of complete conviction as to the reality of what he was reading. When I woke him up he expressed certainty that what he had seen was something different from his own imagination. And so it was with all these patients.

In another case, my most complete case, I got the following results, which I should like to read out because I was able to get independent

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evidence concerning them, first by having a letter written by the patient to his relatives, saying that he had dreamt about them and would like to know what they were actually doing at that time, and then by getting him to write a second letter, stating more explicitly what he had thought they were doing, and asking for a more definite reply. The result is as follows. (I have tried to separate the incidents, so that we can put one against the other, successes and failures, for it is very difficult to arrange a unit of coincidence or of correspondence.

(1) The patient saw his wife in the garden on September 24th, 1917. Extract from daughter's and wife's letters: "She *was* in the garden sowing cabbage, turnip and onion seeds."

(2) He saw one row of runner beans, and was surprised not to find more. The letter said: "There are two rows of runner beans, but they look like one from a distance because the wind has blown them down."

(3) He saw his dog, Bella, who looked as fat as a pig. The letter said: "Bella is in her kennel. She is looking very well on one meal a day. We always say she is on war rations when people say how fat she is."

(4) *Patient:* The garden looks as if a lot of pigs had been routing there. *Letter:* The garden does look as if it had been routed up by pigs, as the gardener has dug the potatoes.

(5) *Patient:* The children's flower-garden is gone. *Letter:* The children's flower-garden is all right.

(6) *Patient:* There is a big heap of ashes under the water-tank. *Letter:* The ash-heap is in its usual place up in the corner by the hedge, but there is a heap of rubbish from the garden opposite Mrs. Miller's front window (*i.e.*, near the water-tank) waiting to be burnt.

(7) *Patient:* All the wire-netting is down. *Letter:* The wire-netting is all right.

(8) *Patient:* They have repaired the gate and painted it red—the very colour I detest. *Letter:* The gate is broken, but we tie it up with a piece of string at night. (The letter says nothing about the colour of the gate. I may mention that the patient was very annoyed indeed when he saw this. He woke up from his dream furious as a result of his apparent visit home, and when I suggested that it was only a dream he would not admit this.)

(9) *Patient:* The case of birds has been shifted, and the gramophone is in the place where the birds were. *Letter:* The case of birds is in the same place, and the gramophone is still in the window.

(10) *Patient:* The sewing-machine is on the front window-ledge. *Letter:* The sewing-machine is now on the little table under the back window.

(11) *Patient* (on a later occasion when he finds them at tea): They

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are eating eggs, bread-and-butter and cake. *Letter:* We did not have eggs or bread-and-butter for Tuesday's tea, but we did have a big cake.

(12) Patient was able to say how the people were arranged. He said: "The school-teacher is sitting in my place, Jimmie opposite, and my wife in her own place." *Letter:* Yilpha [I believe that was a daughter—it is a curious name] sits in your place at table and Miss Dart on her left, and Mother in her right place, Jimmie on her right and I [the other daughter] in the same place at the end.

(13) *Patient:* My boy, Jimmie, looks well. *Letter:* Jimmie does look well and he is brown.

(14) On another occasion (September 25th, 1917) the patient says: "My wife is ironing clothes and Clara [the daughter who writes] is folding them and putting them away." Clara writes: "I was folding clothes, but not ironing, nor was Mother helping me."

(15) *Patient:* Someone has been doing the roof. *Letter:* Mr. Horrell has repaired the roof.

(16) *Patient:* I cannot see my cat yet [a cat of which he was very fond]. *Letter:* As for Kit, he is no more. We suppose he got trapped, because we have not seen him for months.

Well, it is only in that way that one can test the objective validity of clairvoyance of this kind. I quote this case in so much detail not so much because it shows a good many coincidences, although I admit that it shows more than some other cases, but because I was able to get so full a record from the patient's friends. If we reckon up the coincidences, we shall find that there is over 50 per cent. correspondence. What might one expect as a chance coincidence? It is difficult to say, because a number of these correspondences are what the patient might have expected—what his subconsciousness might have expected—to find. You send the patient to sleep and suggest to him that he will see certain things, and naturally his mind gets active and forms images of what he may possibly see. That is the tendency in anyone. Ask anyone to make his mind a blank, and then suggest to him that he will see what may be happening in another place, and an image of what he thinks is likely to be going on there will come up before his mind. These patients had previous knowledge of the people they had left behind them, and so it was possible that their expectations might find themselves realised. As regards the gate and the general state of the garden in the case I have quoted, I have no doubt that my patient did expect to find something of that sort. Although he had the greatest confidence in his wife in other matters, he had not much confidence in her powers of keeping the home fires burning satisfactorily. He was prepared for trouble and got it, but whether the troubles he saw were merely the products of his own imagination which chanced to coincide with reality, or whether

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they resulted from a power that he possessed in the hypnotic state of transcending space and visiting other places in thought, is very difficult to say. And note that it is not a question here of *passing through* space, but of transcending the conditions of space and being present in another place, which for us is far away, but which we may conceive is near at hand for a spirit. The mere passing through space need trouble us very little. There seems to be no lapse of time in these occurrences. Why do I think that? I had another case of a Canadian who thought that he could see his people in Canada. I have not the case with me, unfortunately, so that I do not quote it as definite evidence, but I can remember it sufficiently to be able to say that the time when he looked at the clock in Canada corresponded to the difference which you would expect to find. I might also add that the difference in time in the case of the boy who went back to Liverpool was about half an hour, which does roughly, I believe, correspond to the difference in time between the north of England and Cerisy-Gailly, on the Somme, where we were. When I asked him what the time was, he said he could not see a clock, but he knew that there was one down the street, and when he reached it he would look at it. He waited until he reached it and told me what the time was. In the case of the Canadian the time was some hours different, but corresponded fairly closely to what the time would have been in Canada. My patient could see his parents, whom he had not seen for some years, and told me what he found there, but I could not verify the results. I merely quote this case in illustration of the time it took to make the passage to another part of the world, to illustrate the fact that, if there is any real clairvoyance, it is not a matter of passing through space, but that the mind is in a condition where space is transcended. Just as in imagination we can transcend space, so it may be that the mind or spirit can *actually* pass from one place to another in a moment of time.

What I am most anxious not to do is to give you the impression that I am quoting these cases against Psychical Research. I am not necessarily quoting them *for* Psychical Research; I am only quoting them as cases of patients who were certainly pathological. They came to me because they were pathological, and the ease with which they could be hypnotised corresponded to the degree to which they were ill, the degree to which they had become dissociated. But if you say that because of this the results obtained are certain to be mere figments, you will be going further than I am able to go. These results can only be judged on their merits.

Why do I think that? Apart from these apparent coincidences or correspondences I do know that, again and again, when my patients were hypnotised they showed distinct powers of telepathy more pronounced than one usually finds in normal waking life. Here again I made no regular experiments because we were working at very

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high pressure. The wards were always full of shell-shock cases, for, if there was no big push going on, we kept the patients longer in the hospital in order to be sure that they were completely cured. One was therefore not able to carry out experiments except incidentally, but I did from time to time test my patients' powers of telepathy, and on occasions I got remarkable results, which seemed to be absolutely inexplicable by chance.

On one occasion, with one of my hypnotic patients, I remember suddenly taking a book out of my pocket. The man's eyes were closed, and I was some way away from him, so that he could not possibly see what I was doing. I took out a book which happened to be an army book. I said to him before doing so: "I want you to tell me what is in my mind. You will see certain letters and figures, and I want you to tell me what they are." I took the book out, not knowing what I was going to see myself. Almost at once he said: "A.B. 207"—an army book of a certain number. He gave me the whole thing absolutely accurately. In criticism of that you might say: "This patient had probably seen such army books before. He was sensitive of hearing, and this sensitiveness was increased in the hypnotic state, and, hearing the rustle of the bringing of the book out of my pocket, he rapidly put two and two together and guessed the number, deceiving himself without knowing it—his subconsciousness had got it by deduction." As against that I would say that this army book was an army book that was used in the hospital, one that I kept on my desk in my office and also carried about in my pocket, but one that I do not think I had ever had occasion to show in the ward. The man had been treated by me two or three times, but I do not think that he had had any previous opportunity of seeing the book. I admit that there is a possibility that he had—I cannot rule that out. Assuming that he had not seen the book before, and that he had not subconsciously deduced what he should see, the chances against that picture coming to his mind by coincidence are of course enormous. You know how chances are worked out. Supposing you take a single number and ask your patient to guess that number, the number can only be from 1 to 9. There are only, including 0, ten possible answers, and the chances that he will, by some coincidence, get the right number, are roughly one in nine. Now, instead of a single number, suppose you ask him to guess two numbers. The chances that he will get either right are one in nine, the chances that he will get both right $1/9 \times 1/9 = 1/81$. The chances that he will get them in the right order are $\frac{1}{2} \times 1/81 = 1/162$. If you take three or four numbers the chances against rapidly increase, and the chances against this man's guessing the letters A.B. 207 are enormous. You can easily work them out for yourselves by the theory of probability.

I turn now to experiments with numbers. (No very satisfactory

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experiments have been attempted in thought transference with numbers, because these have so little meaning, and carry no emotion with them.) Here one did notice correspondence, but it was of a curious kind. As I was thinking the various numbers of the series—I used to have them written on different slips of paper and look at one after another—the patient would be saying what came to his mind each time, and I noticed that there was a much closer correspondence between his guesses and the number preceding the number I was actually thinking of, than between his guesses and the number I was thinking at the moment. If the actual numbers were 2, 7, 3, 9, 8, 4, I did not look at these all together—they were on separate slips of paper. I would look at the number 2, and he would guess, say, the number 0. I look at the number 7, he may give the reply 2. I look at the number 9, he guesses the number 3. I look at the number 8, he may give the number 9. I look at the number 4, he may give the number 8. If you take into account delayed effect, if you regard it as a reasonable scientific hypothesis that numbers in the subconscious can be more readily experienced in another person's subconsciousness or in the hypnotic state than numbers that are actually in consciousness, this 2, say, that I have just experienced and that is now at the periphery of my field of attention on its way to my subconsciousness may be the number that presents itself to my patient's subconsciousness. It acts upon the patient later. He gets the 2, then the 3, then the 9. Four and five begin with the same letter. You might say that there was some correspondence if he gave 5 instead of 4. Three and six are related numbers. You would thus be able to work out a correspondence which, if borne out in a large number of experiments, would outweigh chance. As I said before, I did not work steadily through a series of experiments, so that I can only give impressionist views about this, but, as regards figures, one did get results of this nature, and the hypothesis I have outlined may possibly explain them in terms of telepathy.

The curious thing about experiments in telepathy is that one so frequently gets bald patches, where nothing seems to happen. Then, at another time, one seems to get a lot of correspondence. The statistician would say that this could be explained by mere chance. If you took a sufficient number of series the law of error would work in this way, and I am willing to admit that, if we had taken a large enough number of cases, that might have been so. But in telepathy correspondence is often much more significant than want of correspondence, because it is often accompanied by a curious subjective feeling on the part of the percipient. One noticed that here. Where the patient was right he was much more certain than in other cases. A recent work on telepathy, in which emotional factors are taken more into consideration, is regarded by the Society for Psychical Research as

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giving evidence of closer correspondence than earlier works based on more neutral material. Feeling-tone seems to be very important in these cases. Even in connection with these figures you must remember that the patients came to me in a highly emotional state. They were worked up. They had often been cured of their disabilities by hypnosis, and everything that went on had significance for them. They were extremely grateful for what had been done for them, and were delightful people to work with, and all this suffused everything that happened, and might also explain the high degree of correspondence that one observed in these cases.

If we turn to the opposite theory which explains these phenomena in terms of pathological psychology, if we turn, for instance, to the possible explanation of clairvoyance along these lines, we should have to say that the patient was in a very suggestible condition, that he dreamed to order (*i.e.*, at the order of the operator), and dreamed at a definite rate, at a normal rate, instead of at the rate of ordinary dreams, because it had been suggested to him that he would do so. It had been suggested to him, either implicitly or explicitly, that he would see his people at home, that he would see what they were doing, and he would expect them to be going on at the ordinary rate, and so would see all that he saw at the ordinary rate. In certain cases I feel that that explanation was sufficient. In the case of the patient who saw his *fiancée* reading in the grounds of the college, there was practically no correspondence between what he saw and reality. His *fiancée was* in the garden, but she was not reading. She did not know a book of that title, and, as far as we can make out, there is no such book, so that all that had been imagined by the patient.

In the case of the boy who claimed to have moved the collars and to have caused surprise in his mother's mind, we were able to get no independent evidence. I got him to write home, but we received no reply, so that I should say that scientifically we are right in assuming that the result had been negative.

Again, in the case of the patient whose results I have read out in detail, on another occasion a result was obtained which did not correspond with the facts. I told this patient when hypnotised that he would see my wife, and he spoke as follows. (I got all this taken down by my corporal, so that everything that I read out is correct in detail, there is no editing by myself.)

"I can see a tall person, but I am not certain whether it is a man or a woman." I said: "Now you will see which it is," and he said: "It is a woman with a fawn-coloured cape on with fur edges." "Tall" was correct, but the clothes were certainly not correct. Her hair, he said, was dark brown—it should have been gold. "Fresh complexion" —correct. "What else can you see?" "I can see two blue vases with flowers." "What is the name of the place?" "Brighton." The place

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was not Brighton. I asked him: "Are you certain it is Brighton?" "Yes," he said, "I can see Brighton pier running out to Rottingdean." That is the record he gave and I was not satisfied, so I went into it more deeply and discovered that it was an incident that had happened to himself at Brighton twelve years before. It was an old memory! Possibly it is like that in many cases. We have to take that possibility into account in estimating the evidence.

I think we can exclude fraud in these cases. These patients had no motive whatever for deceiving me. I was very strict as regards malingering, and it was quite easy to be sure about the genuineness of hypnotic cases because patients who pretend to be hypnotised are easily recognised. In these cases no fraud would have been intentional. The deception would have been self-deception as well as deception of me. But even though we find a good deal that is mere coincidence, a good deal, too, that can be explained in terms of Pathological Psychology, I think that, if one keeps an open mind on the subject, one should be ready to put other correspondences down to the other side, and to accept them as possible evidence. No one can expect here to get evidence all on the side of Spiritism. The mind at work is an embodied mind, and its own memories are likely to interfere with and modify the results. The fears, anxieties and wishes of the medium are likely to be a disturbing factor. The question is whether, after allowing for all this, there is a residuum that needs a further hypothesis. If one takes individual cases one may feel inclined to dismiss the residuum as mere coincidence. Again, if one takes a large number of cases in the bulk one may be inclined to say: it is all coincidence. But if one considers each case on its merits, and finds again and again correspondence, say, in the matter of telepathy, and verifiable results in the matter of alleged spirit messages, all accompanied by strong emotional feeling, that, it seems to me, is evidence in favour of the spiritist hypothesis.

I would quote here a case that I can guarantee in all its details, a case which anyone who did not know it inwardly might be tempted to dismiss as mere coincidence, but which to the person who experienced it seemed to be more. The little boy, aged two and a half years, of a scientist lay dying of tubercular meningitis. He was in a nursing-home, so that he should have the best of care, and his parents had been spending all their time with him, sitting up at night by his bedside. At last he reached a stage where he seemed a little better, and it was necessary for them to get rest, as the nurse felt that the child could be safely left to her. Early the next morning, as the father happened to be looking in the direction of the clock on the mantelpiece, he heard a loud noise behind him, a sudden bang, and the thought flashed through his mind: "That is my little boy's photograph which has shot off the edge of the piano." He noticed the time—it was twenty to eight—turned round, and saw that it *was* the photograph which had fallen.

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Shortly afterwards the telephone-bell rang, and the message came through that the little boy had died. The parents hurried round to the nursing-home, and, as they entered the door, the father saw the nurse coming down the stairs. The first question he asked was: "When did he die?" and before she had said anything he *knew* that she would say, "At twenty to eight." He had already communicated the fact to his wife, and she too knew that that was the time. The incident carried with it a strong emotional feeling—curiously enough a feeling of intense relief and peace. The whole incident might, of course, be explained as a coincidence. One might say that it was certainly a coincidence that the two clocks should have recorded exactly the same time. As against that one has to consider the parents' inward feeling of certainty, and the curious circumstances of the case: firstly, the fact that the photograph did shoot right off the piano, and there was no reason why it should do so. If it had slid off in the ordinary way it would not have shot right across the room as it did. Secondly, the thought came at once into the father's mind what had happened. There were other things on the piano. The person to whom the incident happened, although he was a scientist, ready to allow for other possibilities, was fully convinced by it, and certainly at that time he did not actually believe in survival. He naturally hoped that his own child would survive, but he hoped more that it would continue to live. That was the thought which was uppermost in his mind, not the other. If you consider the whole situation, that again, I think, is a kind of correspondence which is most difficult to fit in with anything. It is peculiar. I can answer for this incident entirely, but instances of a similar kind seem to be continually happening, and people find them very difficult to explain. Telepathy and kindred phenomena are easily explained in terms of expectancy, but spirit manifestations of this kind are outside the range of ordinary explanation. And yet some of us are being brought up against just these facts of physical change which are very difficult to explain by the hypotheses generally accepted by science.

Finally, I should like to conclude this rather disjointed lecture by referring briefly to the attempts that are being made at the present time to explain spiritualistic phenomena in terms of what is proudly called "The New Psychology"—Psycho-Analysis. And I would merely utter the word of caution that, if the results of Spiritism tend to be supported all too frequently upon coincidences, the results of Psycho-Analysis are similarly supported far too much upon coincidences. These phenomena have still to be investigated in the true scientific spirit of comparison, close scrutiny, multiplication of cases, demonstration of cases to others, and, at the present time at any rate, it is rather too early to undertake an explaining away of the facts of Spiritism in terms of this new science.

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EXTRA-RETINAL VISION

By W. J. H. Sprott

BEFORE the use of Psycho-Physiological methods, histologists had discovered many morphologically different nerve-endings in the skin. These were all subsumed under some such head as "tactile," and no separate functions were allotted to them. Later on it became apparent that special nerve-endings must be set aside as conductors of heat, cold, and pain sensations. This, however, by no means accounted for all that histology had discovered, and Prof. Louis Farigoule has carried out some experiments to show that there is yet another sense whose nerve-endings are in the skin. He connects this sense with the terminations of Ranvier, the function of which has hitherto been unknown, and which are situated in the epidermis.

I shall divide this account into three divisions: A., objective series of experiments, *i.e.*, on other people; B., subjective series, experiments on himself; and C., his theory.

A.

Prof. Farigoule was led by consideration of the unsatisfactory attitude of science towards the phenomena of somnambulism to investigate abnormal vision.

The only peculiarity about his first subject was that an advanced state of hypnosis described by Prof. Farigoule as "*régime* δ" could be easily induced. The subject knew nothing of the experiment for which he was being used. When in this state, his eyes were bandaged and he was told that he was to make use of a faculty which he certainly possessed, though he did not know it. He was given a newspaper and told he must read at least some of the largest letters, that he must not rely on his sense of touch, but that he must "see" in the usual sense of the word. He was also shown some gestures which are used by clairvoyants and which perhaps favour the mental attitude and aid the concentration of attention.

After two or three minutes of agitated hesitation, the subject spelt out in syllables the title of the paper—letters 30 mm. high and 5 mm. thick. He was then told to read the title of an article—letters 5 mm. by 1 m.m.—and with great difficulty he read "not the actual

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words of the title, but a rigorously precise equivalent." [1] Eventually he pronounced the words correctly.

At this stage two points must be noticed: (1) the difficulty and partial failure of the subject, and (2) the fact that his fingers only ran quickly over part of the paper.

The experiment took place in broad daylight and in the presence of two assistants.

So great was the fatigue of the first subject that he refused to be made use of again, and five others were taken—the first five who were willing to undergo the necessary treatment. They also had no prior knowledge of what was expected of them.

These five series of experiments confirmed him in his opinion that there is a "paroptic" perception which is *sui generis*, and he decided to examine this in greater detail rather than establish further instances of its existence.

The apparatus consisted of four objects: the "*guignol*," the "buckler," the printing-frame, and the bandages.

The *guignol* was like a small portable bookcase without shelves, with an opaque back, sides, and floor, and a slanting roof which was translucent but not transparent; the whole could be held by the subject in front of his body below the chin, by a projection at the bottom, in such a manner that rays of light coming from objects placed inside the *guignol* could be prevented from reaching the eye, while the light inside was not less bright than the light in the rest of the room. When letters or figures were placed with their faces to the back of the *guignol*, they could not be seen however the apparatus was held, but if they were placed with their backs to the back of the *guignol*, they could only be seen when the apparatus was held in certain positions.

The "buckler" was like a box without a lid, all of whose sides were hinged on to the bottom, and could be opened out flat. Handles were placed on two opposite flaps.

The printing-frame was similar to those used for photographic purposes and was used to place letters, etc., under glass so that the subject could not touch them.

The bandages used for blindfolding were ten times as thick as ordinary bandages and, in addition, wads of cotton-wool were used.

The use of these four appliances established the fact that if between the body of the subject and the object be placed a translucent but not transparent screen, or an opaque screen, there is no paroptic vision. If the screen be made of thick fabric (too thick for retinal vision to see through) it is nevertheless possible for paroptic vision to take place—provided the screen be brought close up to the body.

[1] *La Vision extra-rétinienne*, par Louis Farigoule, p. 31.

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In the dark there is no paroptic vision and it becomes clearer as the brightness of the light approaches the intensity of sunlight. The threshold of paroptic vision for light approximates to that of retinal vision.

In normal light the paroptic perception of colours is perfect, and the same terminology is used to describe colours as is used in the normal state. The threshold of colour vision for paroptic sight is below that of retinal vision.

The paroptic spectrum is longer than the retinal spectrum in the ultra-violet direction.

Reflected images are visible.

All this goes to prove that light is the physical agent of paroptic perception.

The use of the retina is eliminated by bandages; the sense of touch is excluded by the use of the printing-frame and by placing the objects at a distance; but when we deal with the sense of smell the case is more complicated.

Subjects, on being told to recognise colours, sniff as if they were appealing to their sense of smell, which does not occur in the case of forms or signs. If the mouth is closed and the nostrils stopped up with wads of heavily scented cotton-wool the perception of colour appears to be slightly hesitating. If, the nostrils being free, coloured papers be placed under thick glass, so that no smell can reach the subject from them, the recognition is accurate in a bright light, but if the room is badly lighted he always sniffs before answering. The chemical nature and actual scent of the coloured objects make no difference to the perception of their colour. This seems to show that the function of the nasal organs in paroptic vision is altogether different from their function of smell.

The *guignol* and buckler have been used to show that any part of the body is capable of manifesting extra-retinal vision, but with unequal success. The smallest extended portion endowed in this way is a few square centimetres, but the larger the area involved, the clearer the sight. When the use of extra-retinal vision has been well developed, a subject reads at a normal rate when his hands, forehead and chest are bare.

The order of value of the various parts of the body is as follows: (1) Right hand (for right-handed persons); (2) left hand; (3) neck and throat; (4) cheeks, forehead and chest; (5) back of the neck, arm, thigh, etc. The nostrils have the above-mentioned peculiar value in colour-vision. If the object can be manipulated the subject often holds it in turn before the palm of his hand, the tips of his fingers, his forehead, and his chest.

The space of paroptic vision is three-dimensional and has the structure of the normal tacto-visual space.

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At first the subject will read, *e.g.*, 492 as 249, and then as 924, and express uncertainty as to his final answer.

In the early stages the kinetic space of the subject does not coincide with his visual space, and he will point at an angle of 30-45 degrees to the side of an object at which he thinks he is pointing. This, however, is corrected by experience.

At the beginning the subject seems to be, as it were, shining a narrow beam on the object he perceives, and his vision is rather "successive" than "simultaneous."

One subject remarked, *à propos* of reading some figures,[1] "I see at first a mass of things dancing . . . then it all joins up little by little." The same phenomenon was noticed in the subjective series of experiments by Farigoule himself.[2]

The depth of paroptic vision is the same as that of retinal vision, but while the latter is, roughly speaking, a cone whose horizontal section gives a sector with an angle less than 180 degrees, the field of paroptic vision is circular.

In the education of a subject all stages appear, from the early isolated vision of one letter on a page to "simultaneous" circular vision, passing through a stage where it takes time to transfer the attention from front to back.

Finally, it is quite easy to bring the experiences of paroptic vision under hypnosis into the conscious memory of the normal state.

B.

All the subjects of these experiments were prepared for the development of the paroptic vision by means of hypnosis. The following experiments show that this is not a necessary condition.

Prof. Farigoule's first few attempts to produce paroptic vision in himself were unsuccessful. The mental attitude adopted was that of looking inwards and determining to concentrate attention on the effect to be produced. The objects chosen were figures, colours and letters.

Then, adopting the attitude of forcing himself to look outward, and choosing bright objects—*e.g.*, a ball of crystal, a gilt frame—he was more successful. Ten *séances* spread over a period of a month, and lasting less than an hour each, passed with no result. These were followed by a longer *séance*, at which, after a state of great muscular tension accompanied by respiratory and cardiac acceleration, he was rewarded by a vague sight of the yellow cover of a pamphlet and a travelling-bag with silver mounts, and also a still more filmy view of the room and its walls. He described his experience[3] as being like the slow filtration of light into the night with which he had hitherto been

[1] *La Vision extra-rétinienne*, p. 51. [2] *Ibid.*, p. 81. [3] *Ibid.*, p. 78.

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surrounded. This lasted two or three minutes, and the darkness returned. With astonishing perseverance he recommenced his experiments after two days, having daily *séances* lasting from four to six hours each. At the tenth *séance* of this series he attained paroptic vision of small objects (scissors, a key, etc.), at the thirteenth he experienced circular and sternal vision, and eight more were devoted to elaborating his experiments.

Circular vision came quite suddenly after a period during which the head had been instinctively turned in the direction of the object looked at. It is difficult to retain circular vision for long. What usually happens is that, while looking at an object in front of him, the subject catches glimpses of other sectors all round him one after the other.

Prof. Farigoule describes [1] extra-retinal vision taking place in the chest as being accompanied by a feeling that the head was enveloped in a dark place while a bright light reigned in the chest. The attention must, as it were, descend to look at objects bathed in its radiance.

C.

We turn now to Prof. Farigoule's theory. It is, he declares, absurd to adopt a sceptical attitude and reduce these phenomena to illusion or trickery. It is not plausible to explain them as being due to highly-developed memory. Tactual hypersæsthesia is ruled out by use of the printing-frame.

A "double" would hardly be baulked by the opaque screens, but recourse to such unestablished fictions is as unsatisfactory as to suggest that we have some special direct contact established in these cases between the subject and objects, or that there is some mysterious transference of sensation from the eye to the nose or fingers.

Telepathic communication is a more likely explanation, but it is hard to reconcile it with (1) the fact that Prof. Farigoule was often ignorant of the figures or letters placed before the subject, having drawn them at random out of a hat; (2) Prof. Farigoule's subjective series of experiments; (3) the failures of the subject to respond at once and his inability to see in a reduced light. Prof. Farigoule only once mentions the presence of witnesses, and does not say whether they knew, when he did not, what letters, etc., were placed before the subject. This is the one loophole for telepathy, and this only answers the first objection.

The suggestion of hitherto unknown radiations, which penetrate the bandages, must be dismissed because if the subject be placed, with closed but unbandaged eyes, behind but not too close to a curtain he

[1] *La Vision extra-rétinienne*, p. 85.

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is unable to see through it, and the bandages used were thicker than the curtain with which this experiment was tried.

We must therefore, according to Prof. Farigoule, fall back on some theory which offers an explanation by means of organs situate in the periphery.

Organs satisfying the required conditions of size, position and multiplicity are found in the terminations of Ranvier (*menisques ou terminaisons hederiformes de Ranvier*), which Farigoule calls "ocelli" (*les ocelles*).

They consist of (1) a neural termination like a curved disc (the analogue of the retina); (2) an oval granulated cell of high refractive power (the analogue of the lens) resting on the neural termination; and (3) nerve fibres leading from (1) (the analogue of the optic nerve).

The fact that paroptic vision is possible through material placed close to the body, and too thick for the eye to see through, gives plausibility to the theory. Just as a palisade of stakes close together does not prevent one seeing through it when we are quite near, but will form an effective screen when we are at a distance or to a gigantic eye wherever placed, so the meshes of a woven material allow light to penetrate to the microscopic ocelli, while they would block the vision of the ordinary eye.

Several ocelli together form groups or clusters, connected together by the nerve fibres of each ocellus. A group may possibly form a kind of composite eye.

The connection between these nerve fibres and the central nervous system is not clear, and the centre of paroptic vision has yet to be discovered. It may be the same as that of retinal vision, or separate from it in the brain and only brought into play by a change of mental state, or again the centre may be in some quite different part of the brain.

The ocelli are also endowed with a tactile function, and taking this into consideration, together with the fact that retinal and paroptic vision are mutually incompatible, Prof. Farigoule suggests that the function of paroptic vision preceded that of retinal vision, that the eyes are, as it were, a specialised "cluster" of ocelli which have superseded the diffused body vision.

It is impossible to exaggerate the importance of Prof. Farigoule's discovery if it can be confirmed, and the necessity for further investigation is consequently very great. His own account is published with *La Nouvelle Revue Française* ("La Vision Extra-rétinienne)," 10f.; it is especially valuable for the description he gives of the subjective series of experiments, and for his remarks on the spatial perception of extra-retinal vision.

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REVIEWS OF BOOKS

Psychology and Psychotherapy. By WILLIAM BROWN. Pp. xi. and 196. (London: Edwin Arnold, 8s. 6d.)

Dr. Brown describes the aim of his book as the "attempt to show the psychological principles underlying the modern theory and practice of psychotherapy." The book is divided into five parts. The introduction consists of a discussion of mental dissociation based on a synthesis of the views of Janet, Morton, Prince, Freud and Jung. The second part contains an account of Freud's theory of dreams and of the unconscious, followed by a brief description of McDougall's theory of instinct and emotion, of Shand's theory of the sentiments, and of Freud's theory of the sexual impulses. The third part is devoted to important psychological factors in psychotherapy. These factors, in the author's view, are four in number, namely, Re-association, Abreaction, increase of the patient's Self-knowledge and power of Self-criticism (a process which Dr. Brown names "autognosis"), and lastly the personal influence of the physician. The fourth part of the book gives an account of the author's experience of the war neuroses, and the book closes with a chapter on the relation of mind and brain.

It will be seen that Dr. Brown deals with a great deal of interesting material, and perhaps the chief defect of the book is a certain want of unity. Although the avowed aim is the display of principles, these are scarcely disentangled and made to stand out with sufficient clearness. One is left in some doubt, for example, as to the precise force of the word dissociation, which seems to be used to mean any kind of loss of function or any kind of separation of function which can occur in the mind apart from organic injury. Except for a reference on p. 8, there is no very definite discussion of the manner of its production, nor of the question of whether it is produced in the same manner in all cases. It is true that the author says, on the page referred to, that dissociation is not an ultimate fact but is a consequence of mental conflict and the attempt at repression, but this does not prevent him from making it a corner-stone in his edifice, and, in the circumstances, one had hoped for a clearer treatment of it.

Dr. Brown's account of his war experience will be read with interest.

Suggestion and Auto-Suggestion. By PROF. CHARLES BAUDOUIN. (Allen & Unwin, 15s.)

The tradition established by Liébault and Bernheim entitles us to expect something notable from the present leaders of the New Nancy School. Professor Baudouin has not disappointed us, but has produced an exceedingly valuable and interesting book which should be read with profit by psychologists and laymen alike.

The author's main thesis is to the effect that "all suggestion is auto-suggestion"; that is to say, that former insistence on the importance of

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the *rôle* played by the operator is wrong and that, in all suggestions, the motive power, so to speak, proceeds from within and is not imposed from without.

For this point of view he makes out a very good case but, in the opinion of the present writer, this is largely due to the definition which he adopts for the word "suggestion." This is defined as "the subconscious realisation of an idea." (It would perhaps have been better to say "the realisation of an idea through the activity of subconscious processes," but the meaning is clear enough for practical purposes.)

This definition omits all reference to the operator and unmistakably implies that the motive-power for the process comes from within the subject. If all suggestion is to be thus defined, then the question of the *rôle* played by the operator is begged at the start, for we are only concerned with what happens *after* the "idea" to be realised has been introduced into the situation; and it might be that the operator was essential to its introduction.

None the less, Prof. Baudouin is perfectly right in emphasising the importance of the part played in the process by the subject's own activities rather than that played by the operator, and the only objection that can properly be raised against his exposition is one of expediency. The present writer holds that the situations in which a subject is receiving suggestions from an operator or is making them to himself are simply special cases of what might be called the general psychological situation, one, in fact, in which an organism (the subject) is reacting to certain stimuli constituting his environment. It seems convenient to have a special name for these particular situations and that is why it seems a pity not to keep the word "suggestion" for the case when part of the environment consists of an "operator" applying verbal stimuli. But it is much more important to remember that this situation is only a special case of a general situation. The operator may be a very important factor in the situation, to be sure, the stimuli for which he is responsible may override all others, but this does not place the situation in a different category, *sui generis*, from those in which we react to stimuli proceeding from other sources. Similarly if I practise auto-suggestion as a result of reading Prof. Baudouin's book, or for any other reason, I am equally reacting to stimuli of one kind or another. There is, in fact, no magical property possessed by the operator who makes a suggestion which is not possessed by the other factors which normally determine our reactions.

To all this Prof. Baudouin would probably agree, and I only write it in support of his general point of view, which seems to me easier of acceptance if we look at the process of suggestion in this way.

In the course of his argument the author gives many striking instances of the power of auto-suggestion. Perhaps the most remarkable point he makes is that general suggestions are far more valuable than specific ones. He recommends suggestions in the form of "I am better *in all respects*" and states that this will include *all* maladies, etc., which may be present, while a specific suggestion will only affect its own particular object. Very interesting, too, is his account of the bad effects of deliberate *effort*, which appears actually to make matters worse instead of better.

Some of the claims made for auto-suggestion may appear extravagant, but similar criticisms were made about hypnotic suggestion, and the results described will doubtless be confirmed in due course.

There is one definitely misleading passage which must be corrected. On pp. 192-193 the author describes certain experiments with the psycho-

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galvanic reflex. The conclusions drawn are completely vitiated by the assumption that the reflex is muscular. It is not: on the contrary it is due to a skin effect, probably to changes in the sweat-glands, and it is not under voluntary control at all. All the effects described are readily comprehensible to those who have worked with the psycho-galvanic reflex at all extensively in terms other than those put forward by the author.

But this is a very minor point and in no way detracts from the general value of Prof. Baudouin's excellent book.

W. WHATELY SMITH.

The Psychic Structures at the Goligher Circle. By W. J. CRAWFORD, D.Sc. (John M. Watkins, 10s. 6d. net.)

This book continues the record of Dr. Crawford's investigations up to the time of his death last summer. The work follows on directly from that described in "The Reality of Psychic Phenomena" and "Experiments in Psychical Science," and the three books should be read together for the proper comprehension of the last. The one under review deals chiefly with experiments of two kinds. The first kind consists in the obtaining in modelling clay, or some similar material, of impressions of the ends of the "psychic rods" which the author believes to constitute the mechanism by which most of the super-normal phenomena are carried out. The second kind is the obtaining of flashlight photographs of the super-normally produced material or "ectoplasm" out of which the rods are formed.

The first kind of experiment led to the startling result that even when Dr. Crawford had satisfied himself that the feet of the medium and of all the rest of the circle were securely fastened to their chairs, nevertheless the impression on the clay was marked with the pattern of the medium's stocking, even more clearly and sharply defined than could be afterwards produced by the stockinged foot. This remarkable result the author explains by the supposition that the part of the plasma which has to form the solid end of the rod is moulded to the solid state on the feet of the medium, so that its surface necessarily retains the pattern of the stockings she is wearing, and if the facts are as stated this is perhaps the least difficult "explanation."

The second series of results consists of a number of flash-light photographs of the substance out of which the psychic rods are considered to be formed, though it does not appear that the structures photographed are capable of exerting any force. They are similar in character to the photographs already published in this journal and were taken in complete darkness.

The other chief subject of interest dealt with is the nature of the marks left on the medium's clothing by the materials which the psychic rod has touched when it has been extruded. Thus in the experiments with the modelling clay, it is stated that some of the clay adheres to the rod and is left behind in the clothing when the rod is again dematerialised. These traces are not distributed uniformly over the foot as if the foot had itself touched the clay, but are only present where there is an interstice between the foot and the shoe, while the stocking is unmarked where it is closely pressed on the sole.

Any criticism of such an investigation is almost impossible for a reviewer. The experiments are clearly described and form such a coherent

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series as we should expect from an investigator of first-class training. For every experiment described there must occur to a scientific reader a whole series of others which he would like to attempt, and which would probably be impossible under the conditions of the *séance* room. The only point which has not always been made clear in the descriptions is how far the mechanical controls of the medium's freedom were maintained throughout all the experiments, and how far Dr. Crawford abandoned the control after becoming satisfied that the phenomena could not be produced by artifice.

In Search of the Soul and the Mechanism of Thought, Conduct and Emotion. By BERNARD HOLLANDER, M.D. 2 vols. (Kegan Paul, £2 2s.)

One's first thought in approaching this voluminous work is one of admiration for the industry and erudition which have gone to its production. Dr. Hollander has attempted the colossal task of compiling a survey of the whole of philosophical, metaphysical, and psychological thought from the earliest times to the present day. He has brought together an immense amount of material, much of which cannot fail to be valuable to the general student of these subjects for reference purposes. In addition to brief summaries of the views of all the chief philosophers the author quotes innumerable cases of neurological and general medical interest.

As a result of this comprehensive survey he attempts to establish the foundations of a science of Ethology (the science of character). His general conclusions are to the effect that ". . . instead of saying 'man has a soul' it would be more correct to say that 'man himself is a soul.' He is not a conscious machine but a spiritual being." The following passage will serve to illustrate the author's view in the topics which chiefly interest the "PSYCHIC RESEARCH QUARTERLY":

"If spirits there are, if they love those whom they have left behind them, if there is any love for humanity in heaven, if God could reveal Himself to our ancestors, there is no need for the intervention of unholy media (*sic*) and their commonplace interpretations. Such is my personal opinion. . . . All the same, let us keep an open mind on the subject."

Sufficient has been said to indicate the wide scope of the book and the immense amount of work which must have been involved in its production.

As against these it is necessary to point out certain obvious weaknesses. All the doctrines of psycho-analysts are dismissed in about one and a half pages—an absurdly small space in a book purporting to consider the science of character. Much attention is paid to the localisation of functions in the brain, but the work of Head is allowed less than two lines, while Riddoch and Gordon Holmes are, among others, wholly unmentioned. Shand also receives too little attention in view of the fact that his "Foundations of Character" is one of the most important—perhaps *the* most important contribution to the subject in recent years. Nor can one trace any reference to Idealism as a philosophic system, although certain individual idealists are mentioned.

The work will, in fact, be very useful for reference purposes to those who can supplement its deficiencies from their own knowledge, but it should not be relied upon as encyclopædic.

W. WHATELY SMITH.

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Proceedings of the Society for Psychical Research. Part lxxx. Vol. xxxi.

This number of the *Proceedings* contains a Presidential Address by Dr. William McDougall, F.R.S., M.Sc., M.B., in which he explains his own attitude as a psychologist towards Psychical Research and develops his version of the theory of monads in relation to the problems studied by the Society. It is very well worth reading.

The greater part of the number is taken up by an exceedingly interesting paper by Mr. Hubert Wales entitled "*A Report on a Series of Cases of Apparent Thought Transference without Conscious Agency.*" Mr. Wales was fortunate enough to get in touch with a lady who claimed that she frequently received telepathic impressions of thoughts occupying the mind of one of her friends. By a fortunate chance it proved that she was also receptive to impressions derived from Mr. Wales' own mind and the task of collecting observations was thereby much facilitated.

For a considerable period the lady in question wrote to Mr. Wales almost daily describing the impressions which she had received and which she thought were of telepathic origin. In a large proportion of cases these were found to correspond with ideas which had been occupying or had passed through Mr. Wales' mind during the day, although they were sometimes of so trivial or commonplace a nature as not to be beyond the scope of coincidence. But in a considerable number of cases coincidence cannot plausibly be invoked, and these constitute an important addition to the already great mass of positive evidence for telepathy.

Mr. Wales and his collaborator alike deserve our thanks for the trouble they have taken to achieve these very interesting results.

Another contribution to telepathic evidence is to be found in the Society's *Journal* for January and February, 1921, which contains an account of some experiments conducted by two Dutch investigators, F. H. van Loon, M.D., O.B.E., and A. A. Weinberg. These were on what may be called "standard" lines—transference of colours, shapes, tastes, pains, etc.—and it is interesting to note that by far the greatest measure of success was attained in cases where the idea to be transmitted was accompanied by a relatively strong emotional tone.

This is a point which ought to be further investigated.

Part lxxx. of the *Proceedings* also contains a review of Dr. Troland's account of his work on telepathy at Harvard.

The New Psychology and Its Relation to Life. By A. G. Tansley. (Allen and Unwin, 10s. 6d.)

On the whole Mr. Tansley's book is disappointing. Not that it is a bad book; on the contrary it is, in many respects, a very good book, and a great many people have already found it most helpful. Perhaps it is unfair to be disappointed at all, but one had been encouraged to hope that Mr. Tansley had produced the book for which we have all been waiting for so long: a book which should really succeed in *clarifying* the doctrines of the "New" Psychology, in exhibiting the fundamental unity of mental processes, in translating the "*ad hoc*" terminology of psycho-analysts into terms of pre-existing knowledge and in showing how the whole story of Dreams, Neuroses, Sublimations, Repressions and so forth can be made coherent and continuous and intelligible. For such a book there is an urgent need and it is very possible that it might best be written by some-

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one who, like Mr. Tansley, is not primarily a professional psychologist. But although this book is clearly the result of careful study it does not, in the opinion of the present writer, achieve these results. It is a sane and thorough exposition and, as such, superior to many recent publications which are neither. But it leaves us much where we were as regards the underlying mechanisms of mental processes; we are still obliged to think in terms of Libido and Affect and Conations and the Ego-Complex. These are useful terms enough, invaluable indeed as counters in the psychological game; but one wishes that Mr. Tansley could have shown us more clearly what Affect *is*, for example, how it arises and how it leads to repression or the reverse. The all-important question of *how* "two complexes whose conations would give rise to incompatible actions" produce "conflict" and just in what that conflict consists is another point which the ideal book would have tackled exhaustively.

As a specific criticism one must, of course, take exception to Mr. Tansley's attempt to revive the use of the word "complex" to denote *any* relatively stable group of ideas (constellation) instead of a conflict-producing, pathogenetic, painfully-toned and repressed system as is now the almost universal usage. Etymologically Mr. Tansley is right and his terminology is academically preferable. But it is no use fighting against established custom in a matter of this kind and we may as well resign ourselves to the use of "complex" in a pathological sense.

None the less Mr. Tansley's book will be found valuable by many who wish for an introduction to recent psychological doctrines.

W. WHATELY SMITH.

The Earthen Vessel. By PAMELA GLENCONNER. With an Introduction by Sir Oliver Lodge. (John Lane, The Bodley Head, 6s. net.)

Those who have followed the recent developments of Psychical Research are probably familiar by now with the general character of that particular group of phenomena known as "book-tests," but any readers to whom the matter may be new will find the information they require in Sir Oliver Lodge's prefatory note to Lady Glenconner's book.

The book-tests described by Lady Glenconner were obtained at sittings held with the professional medium, Mrs. Osborne Leonard, and the ostensible communicator is Lady Glenconner's son, Edward Wyndham Tennant ("Bim"), occasionally assisted by one or other of his friends. Assuming that book-tests are in fact due to the agency of discarnate intelligences, we must suppose that the various agents differ greatly in their power of successfully conveying the required information to the medium, and, judging by the tests set forth in the volume now under consideration, Lady Glenconner's son would appear to have been unusually successful. It may be said that none of his tests, taken individually, are more striking than tests which have been obtained by others, but the proportion of successes compared with failures is exceptionally high. Perhaps the most striking single incident is that described on pp. 58-61. Lady Glenconner introduces the test by an account of the late Lord Glenconner's interest in forestry and of his frequent remarking upon the ravages caused by a certain beetle. "The beetle," she tells us, "had become a family joke."

In her sitting with Mrs. Leonard on December 17th, 1917, the following passage occurred:

Feda. Bim now wants to send a message to his Father. *This book is particularly for his Father;* underline that, he says. It is the ninth book on the third shelf counting from left to right in the bookcase on the right of the door in the drawing-room as you enter; take the title, and look at page 37.

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Lady Glenconner continues :

> We found the ninth book in the shelf indicated was *Trees*.
> And on page 36, quite at the bottom, and leading on to page 37, we read :
> "*Sometimes you will see curious marks in the wood ; these are caused by a tunnelling beetle, very injurious to the trees . . .*"

In estimating the value of this test it has to be borne in mind that beyond the statement that it was intended to apply specially to Lord Glenconner, no indication was given as to what would be found, which leaves a fairly wide field of choice. Nevertheless, the extreme appropriateness of the passage indicated and of the title of the book make the incident very striking, and difficult to account for by chance-coincidence.

There is one point upon which Lady Glenconner might with advantage have been rather more explicit. She does not always make it clear to a reader unfamiliar with rooms from which the tests are taken that the selected book has been identified beyond all doubt. For example, on p. 40 we read (in the extract given from the record of the sitting) :

> This is in the house in London and it is to be found in a room downstairs . . . It is in the eighth book on the third shelf, counting from right to left.

Lady Glenconner then gives a very appropriate passage taken from a book in the library of her London house, which, she tells us, was the eighth book on the third shelf counting from right to left. She does not, however, inform us whether there was only one bookcase in the room in question, nor whether the "third shelf" was counted from the top or from the bottom of the bookcase. In recording evidence of this kind it is hardly possible to be too precise and detailed.

Nevertheless, when allowance has been made for such flaws as this, the book remains an interesting contribution to a subject upon which we want all the light we can get.

From the Unconscious to the Conscious. By GUSTAV GELEY. Translated from the French by STANLEY DE BRATH, M.Inst.C.E. (William Collins, Sons and Co., Ltd., 17s. 6d. net.)

It is one of the curiosities of the present age that so many books on philosophy continue to be written and published in which speculations concerning the origin, nature and destiny of man are put forward in a way that would be permissible only if the facts of Psychical Research did not exist. The very full use which M. Geley has made of these facts in his attempt to formulate a philosophy of life is therefore, in my opinion, one of the commendable features of the book.

M. Geley's work is divided into two books. The first consists of a very clear and telling criticism of the classical, scientific and philosophical theories of the Universe and the individual. It is divided into three parts. The first deals with classical naturalistic theories of evolution, and, whilst emphasising the *fact* of evolution as concerns living organisms, points out how unsatisfactory the various scientific theories to account for these facts have proved.

The second part contains a criticism of classical psychology, and particularly its failure satisfactorily to account for so-called supernormal psychic phenomena. In this section of the work will be found a very interesting account of "materialisations" observed by the author himself in the presence of the well-known medium Eva C., which is illustrated by a number of plates. The validity of the phenomena M. Geley considers to

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be beyond doubt, and the matter is one of great importance for his philosophy, because they supply the basis for his thesis that there is one primary organic substance or energy—the dynamo-psychism—wherefrom and whereby all forms of life are evolved, and of which they are so many representations. In passing, it is interesting to note that an analogy is drawn between the phenomenon of materialisation and that of the histolysis of the insect: an idea, it seems to me, very significant and suggestive.

The third part of Book I. contains criticisms of the leading philosophical theories of evolution, namely, evolution under providence according to dogma, monism, M. Bergson's "creative evolution," and the philosophy of the unconscious according to Schopenhauer and von Hartmann. In his second book he passes to a consideration of his thesis of the universe and the individual as the result of the evolution of the primary dynamo-psychism from unconsciousness to consciousness. "The organism," to quote his own words, "appears as only an ideoplastic product of that which is essentially in the being, that is, of its subconscious psychism."

This second book is naturally of a more speculative character than the first, but M. Geley is on the whole careful to distinguish between those views which he considers to be scientifically established and those which he regards as more or less speculative.

That M. Geley's work is open to criticism can by no means be denied. The possibility that the phenomena of materialisation in question may have been fraudulent and produced by means of regurgitation, as suggested in the review of Baron von Schrenck-Notzing's *Phenomena of Materialisation* published in the last number of the PSYCHIC RESEARCH QUARTERLY—though it seems to me a most unlikely possibility—still remains; and apart from these phenomena, that of the histolysis of the insect would appear to be an insufficient basis on which to erect the theory of a primary dynamo-psychism as the basis of all living organisms. Moreover, the concept of a dynamo-psychism is not, to my mind, a very easy one to grasp. What is the unconscious? Is it matter? By no means, for matter, according to M. Geley, I gather to be one of its lowest representations. Nor would it seem to be spirit, for surely consciousness is the character differentiating spirit from matter? It may be a peculiarity of a mind trained in the physical sciences, but against M. Geley's philosophy, as against philosophical speculation in general, I feel the objection that it fails to supply any formula sufficiently exact to be put into a mathematical form and verified quantitatively. But perhaps to ask this of philosophy at the present state of evolution is to ask too much. Like the chemistry of the alchemists it is still in a qualitative state, and much remains to be done before its quantification shall be achieved. Meantime, I welcome M. Geley's work, first as a brilliant criticism of worn-out theories which it is well for us to be done with as soon as possible, and second for a positive thesis which, if not completely satisfactory, is at any rate of high interest and suggestiveness, and, in consequence, of real value.

H. S. REDGROVE.

Spiritualism and the New Psychology. By M. CULPIN. With an Introduction by Professor Leonard Hill, F.R.S. (Arnold, 6s.)

Dr. Culpin has had experience of the treatment of psycho-neuroses and seems to think that this qualifies him to write on the relation between

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psychology and spiritualism. Why this should be so is not clear; one would have thought that any responsible person proposing to discuss the relation of one subject to another would feel the necessity for carefully studying them both, whereas Dr. Culpin's knowledge seems to be limited exclusively to the first of his two subjects.

He tells us a certain amount about the Unconscious and Dissociation, about Hyperæsthesia, Suggestion and Receptivity, about Hypnotism, Dreams and Hysteria, and then goes on to show that certain so-called "spiritualistic" and "supernormal" phenomena are readily explicable in terms of these. But we knew all that before. We also suspected that the movements of the water-diviner's twig arise from unconscious muscular pressure, that his successes may very likely be due to unconscious processes of perception and inference, that similar mechanisms are responsible for planchette-writing and "table-turning," that automatic speech and writing are primarily phenomena of dissociation, that fraud may be unconscious, that witnesses are unreliable, and that mediumistic "controls" are most probably secondary personalities of a purely pathological type. To the serious student of Psychical Research Dr. Culpin, so far, seems merely to be stating the obvious with the air of one discovering the profound —a comparatively harmless occupation. But when on this basis he seeks to demonstrate that there is no good evidence for survival it is necessary to point out that his knowledge of the subject is inconsiderable.

He seems to imagine that Sir Oliver Lodge's *Raymond* contains the best and latest evidence for survival, and the trouble he takes over criticising this work is perhaps the clearest proof of his failure to acquaint himself with his subject.

He has apparently never heard of cross-correspondences, of "book-tests" or "newspaper-tests," or of that very interesting variety of evidential matter commonly known as "literary puzzles." He wholly ignores the all-important sittings at Naples in his assessment of Eusapia Palladino's mediumship; he dismisses the Piper case without any attempt to deal with the results actually obtained; his condemnation of spirit photography does not appear to be based on any extensive technical knowledge; his treatment of the extremely puzzling Crawford-Goligher phenomena is entirely superficial and he apparently imagines that Messrs. Clodd, Mercier and Cumberland are qualified experts on Psychical Research.

The book is, in fact, a good example of what happens when an expert on one subject tries to deal with another highly technical one which he has not thoroughly studied, and it is unfortunate that a man of Professor Leonard Hill's scientific eminence should have allowed himself to be associated with this amateurish production.

W. WHATELY SMITH.

ALSO RECEIVED

Well Being, a Practical Guide. By L. KELLY. (William Rider & Son, Ltd., 2s. 6d.)

The Law of Being. By HELEN BOULNOIS. (William Rider & Son, Ltd., 3s.)

Master Keys of Life and Death. By CAPTAIN WALTER CAREY, C.B.E., R.N. (William Rider & Son, Ltd., 3s. 6d.)

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Theosophy in England and Wales. Vol. L, No. 1. (23, Bedford Square, 1s.)

Purpose and Transcendentalism. By H. Stanley Redgrove, B.Sc., F.C.S. (Kegan Paul, 5s.)

The Inner Teaching and Yoga. By Charles Ware. (Rider, 4s. 6d.)

Higher Psychical Development. By Hereward Carrington, Ph.D. (Kegan Paul Ltd., 15s.)

Studies in Dreams. By Mrs. H. O. Arnold-Forster. (Allen & Unwin, 8s 6d.)

The Charm of the Riddle. By Baron Max von Oppell (Glasgow: Maclehose, Jackson & Co., 3s. 6d. net.)

The Fringe of Immortality. By Mary E. Monteith. (London: John Murray, 6s. net.)

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Black Objects: Plain Speaking and Painful Facts about Spiritualism. By Coulson Kernahan. Pp. 140. (R.T.S., 3s.)

God and the Supernatural: A Symposium of the Catholic Faith. Edited by Father Cuthbert, O.S.F.C. (Longmans, Green & Co., 15s.)

The Law of Love. By C. R. Stewart. (Kegan Paul, 3s. 6d.)

The Problem of the Nervous Child. By Elida Evans. With an Introduction by Dr. C. G. Jung. (Kegan Paul, 12s. 6d.)

The Psychology of Nervous Ailments. By Joseph Ralph. (1s. 6d. of the Author, "Glenthorne," Rousdown Road, Torquay.)

Psyche's Lamp. By Robert Briffault. (Allen & Unwin, 1921. 12s. 6d.)

The Adept of Galilee. A Story and an Argument. By the Author of *The Initiate.* (Routledge.)

Beauty and the Beast. An Essay in Evolutionary Æsthetic. By S. A. McDowall. Pp. 93. (Cambridge University Press, 7s. 6d.)

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