

Presidential Addresses
to the
Society for Psychical Research

1882-1911

BY

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Printed for the
SOCIETY FOR PSYCHICAL RESEARCH
BY ROBERT MACLEHOSE & CO. LTD.
UNIVERSITY PRESS, GLASGOW

1912

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Agents for the sale of publications :

LONDON : FRANCIS EDWARDS, 83 HIGH STREET, MARYLEBONE, W.

GLASGOW : JAMES MACLEHOSE & SONS, 61 ST. VINCENT STREET

AMERICA : THE W. B. CLARKE CO., 26-28 TREMONT STREET, BOSTON, MASS.

254859

ALPHABET

PREFACE

THE present volume is a collection of the Presidential Addresses delivered at meetings of the Society for Psychical Research during the first thirty years of its existence from its foundation in 1882. These Addresses show the aims which the founders of the Society set before themselves and the methods of investigation and criticism which they and their successors endeavoured to follow, and also give incidentally some of the history of the work actually accomplished by the Society. They are reprinted from the *Proceedings* of the Society, in which they originally appeared.

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PRESIDENTIAL ADDRESSES
TO THE
SOCIETY FOR PSYCHICAL RESEARCH.

I.

BY PROFESSOR HENRY SIDGWICK.

July 17th, 1882.

As this is the first general meeting of our new Society since the time it was definitely constituted, it has been thought that I should make a few brief remarks on the aims and methods of the Society, which will form a kind of explanation in supplement to our prospectus defining those aims and methods,—which, I suppose, has been seen by all the members, and perhaps by some who are not as yet members. This prospectus has not been subjected to much instructive public criticism. It has been received, either with entire cordiality, or with guarded neutrality, or with uninformative contempt. Still, several private criticisms on that prospectus and questions suggested by it have come to my notice; and it seems to me that I might perhaps employ the few minutes of your time that I wish to take up in no better way than in replying to these criticisms and objections.

The first question I have heard is, Why form a Society for Psychical Research at all at this time, including in its scope not merely the phenomena of thought-reading (to which your attention will be directed chiefly this afternoon), but also those of clairvoyance and mesmerism, and the mass of obscure phenomena commonly known as Spiritualistic? Well, in answering this, the first question, I shall be able to say something on which I hope we shall all agree; meaning by "we," not merely we who are in this room, but we and the scientific world outside; and as, unfortunately, I have but few observations to make on which so much agreement can be hoped for, it may be as well

to bring this into prominence, namely, that we are all agreed that the present state of things is a scandal to the enlightened age in which we live. That the dispute as to the reality of these marvellous phenomena,—of which it is quite impossible to exaggerate the scientific importance, if only a tenth part of what has been alleged by generally credible witnesses could be shown to be true,—I say it is a scandal that the dispute as to the reality of these phenomena should still be going on, that so many competent witnesses should have declared their belief in them, that so many others should be profoundly interested in having the question determined, and yet that the educated world, as a body, should still be simply in the attitude of incredulity.

Now the primary aim of our Society, the thing which we all unite to promote, whether as believers or non-believers, is to make a sustained and systematic attempt to remove this scandal in one way or another. Some of those whom I address feel, no doubt, that this attempt can only lead to the proof of most of the alleged phenomena; some, again, think it probable that most, if not all, will be disproved; but regarded as a Society, we are quite unpledged, and as individuals, we are all agreed that any particular investigation that we may make should be carried on with a single-minded desire to ascertain the facts, and without any foregone conclusion as to their nature.

But then here comes the second question, which I have had put by many who are by no means unfriendly to our efforts,—that is, Why should this attempt succeed more than so many others that have been made during the last thirty years? To this question there are several answers. The first is, that the work has to go on. The matter is far too important to be left where it now is, and, indeed, considering the importance of the questions still in dispute, which we hope to try to solve, as compared with other scientific problems on which years of patient and unbroken investigation have been employed, we may say that no proportionate amount of labour has yet been devoted to our problems; so that even if we were to grant that previous efforts had completely failed, that would still be no adequate reason for not renewing them. But, again, I should say that previous efforts have not failed; it is only true that they have not completely succeeded. Important evidence has been accumulated, important experience has been gained, and important effects have been produced upon the public mind.

I say that important evidence has been accumulated; and here I should like to answer a criticism that I have privately heard which tends to place the work of our Society in a rather invidious aspect. It is supposed that we throw aside *en bloc* the results of previous inquiries as untrustworthy, and arrogate to ourselves a superior knowledge of scientific method or intrinsically greater trustworthi-

ness—that we hope to be believed, whatever conclusions we may come to, by the scientific world, though previous inquirers have been uniformly distrusted. Certainly I am conscious of making no assumption of this kind. I do not presume to suppose that I could produce evidence better in quality than much that has been laid before the world by writers of indubitable scientific repute—men like Mr. Crookes, Mr. Wallace, and the late Professor de Morgan. But it is clear that from what I have defined as the aim of the Society, however good some of its evidence may be in quality, we require a great deal more of it. I do not mean to dispute,—it is not now the time to dispute,—with any individual who holds that reasonable persons, who have looked carefully into the evidence that has been so far obtained, ought to be convinced by that evidence; but the educated world, including many who have given much time and thought to this subject, are not yet convinced, and therefore we want more evidence.

If any one asks me what I mean by, or how I define, sufficient scientific proof of thought-reading, clairvoyance, or the phenomena called Spiritualistic, I should ask to be allowed to evade the difficulties of determining in the abstract what constitutes adequate evidence. What I mean by sufficient evidence is evidence that will convince the scientific world, and for that we obviously require a good deal more than we have so far obtained. I do not mean that some effect in this direction has not been produced: if that were so we could not hope to do much. I think that something has been done; that the advocates of obstinate incredulity—I mean the incredulity that waives the whole affair aside as undeserving of any attention from rational beings—feel their case to be not *prima facie* so strong now as it was.

Thirty years ago it was thought that want of scientific culture was an adequate explanation of the vulgar belief in mesmerism and table-turning. Then, as one man of scientific repute after another came forward with the results of individual investigation, there was a quite ludicrous ingenuity exercised in finding reasons for discrediting his scientific culture. He was said to be an amateur, not a professional; or a specialist without adequate generality of view and training; or a mere discoverer not acquainted with the strict methods of experimental research; or he was not a Fellow of the Royal Society, or if he was it was by an unfortunate accident. Or again, national distrust came in; it was chiefly in America that these things went on; or as I was told myself, in Germany, some years ago, it was only in England, or America, or France, or Italy, or Russia, or some half-educated country, but not in the land of *Geist*. Well, these things are changed now, and though I do not think this kind of argument has quite gone out of use, yet it has on the whole been found more difficult to work; and our obstinately incredulous friends, I think, are now generally

content to regard the interest that men of undisputed scientific culture take in these phenomena as an unexplained mystery, like the phenomena themselves.

Then again, to turn to a different class of objectors, I think, though I do not wish to overrate the change, that the attitude of the clergy has sensibly altered. A generation ago the investigator of the phenomena of Spiritualism was in danger of being assailed by a formidable alliance of scientific orthodoxy and religious orthodoxy; but I think that this alliance is now harder to bring about. Several of the more enlightened clergy and laity who attend to the state of religious evidences have come to feel that the general principles on which incredulous science explains off-hand the evidence for these modern marvels are at least equally cogent against the records of ancient miracles, that the two bodies of evidence must *primâ facie* stand or fall together, or at least must be dealt with by the same methods.

Then, again, a generation ago we were directed to go to the conjurers, and told that we should see that the whole thing was conjuring. I quite think that this direction was to a great extent just and important: it is highly desirable that the investigation of these matters should be carried on by men who have tried to acquaint themselves with the performances of conjurers. But we can no longer be told off-hand that all the marvels recorded by Mr. Crookes, Professor Zöllner, and others, are easy conjuring tricks, because we have the incontrovertible testimony of conjurers to the contrary. They may be conjuring tricks, but they are at any rate tricks that conjurers cannot find out.

For these various reasons I think we may say that on the whole matters are now more favourable for an impartial reception of the results of our investigation, so far as we can succeed in obtaining any positive results, than they were twenty years ago. In saying this I do not in the least wish to ignore or make light of the evidence that has been accumulated in recent years to shew that at least a great part of the extraordinary phenomena referred to Spiritual agency by Spiritualists in England and America are really due to trickery and fraud of some kind. I had this in view when I said just now that important experience had been gained by preceding investigations. This is certainly part of the experience, and I believe that no Spiritualist denies its importance. It would, however, be a mistake to suppose that investigators, or even believers in mesmerism or Spiritualistic phenomena, had not their eyes open twenty years ago to the part played in these phenomena by fraud.

My interest in this subject dates back for nearly twenty years, and I quite remember that when I began to look into the matter, nearly every educated Spiritualist that I came across, however firmly con-

vinced, warned me against fraud, and emphasised his warning by impressive anecdotes. It is merely a question of degree, and I think it would be generally admitted that recent experiences have changed the view of many Spiritualists with regard to the degree. I think that even educated and scientific Spiritualists were not quite prepared for the amount of fraud which has recently come to light, nor for the obstinacy with which the mediums against whom fraud has been proved have been afterwards defended, and have in fact been able to go on with what I may, without offence, call their trade, after exposure no less than before.

And this leads me to the point which is chiefly characteristic of the method of investigation which our Society will, I hope, in the main use. Though it would be a mistake to lay down a hard and fast rule that we may not avail ourselves of the services of paid performers or paid mediums, still we shall, as much as possible, direct our investigation to phenomena where no ordinary motives to fraud,—at any rate I may say no pecuniary motives,—can come in. There has, of course, always been a mass of evidence of this kind. In fact, I think every one who has become convinced of the reality of the phenomena, or has become strongly and persistently convinced that there is a *prima facie* case for investigation, has had his attention first attracted by narratives of what has gone on in private families or private circles, where none but relatives or intimate friends have been concerned.

Now, the great gain that I hope may accrue from the formation of this Society is that the occurrence of phenomena—*prima facie* inexplicable by any ordinary natural laws—may be more rapidly and more extensively communicated to us who desire to give our time to the investigation, so that in the first instance we may carefully sift the evidence, and guard against the danger of illusion or deception which even here may, of course, come in; and then, when the evidence has been sifted by accumulation of personal experiments, make it more available for the purpose of producing general conviction.

As I said before, I do not mean to claim for myself or my colleagues either any special aptitude for investigation, or any special claim to the credence of mankind, as compared with the members of private households or circles of friends where the phenomena may in the first instance occur. But in a matter so strange to ordinary experience I think we may say that it is only gradually that a man learns the complicated precautions that have to be taken in order to exclude all conceivable possibility of illusion or deception. Certainly my own experience is that I only learnt what had to be done in this way, and had to be guarded against, in a gradual way, by repeated experiments.

As regards the question of credibility, the important point to bear in mind is that every additional witness who, as De Morgan said, has a fair stock of credit to draw upon, is an important gain. Though his credit alone is not likely to suffice for the demand that is made on it, his draft will help. For we must not expect any decisive effect in the direction at which we primarily aim, on the common sense of mankind, from any single piece of evidence, however complete it has been made. Scientific incredulity has been so long in growing, and has so many and so strong roots, that we shall only kill it, if we are able to kill it at all as regards any of those questions, by burying it alive under a heap of facts. We must keep "pegging away," as Lincoln said; we must accumulate fact upon fact, and add experiment upon experiment, and, I should say, not wrangle too much with incredulous outsiders about the conclusiveness of any one, but trust to the mass of evidence for conviction. The highest degree of demonstrative force that we can obtain out of any single record of investigation is, of course, limited by the trustworthiness of the investigator. We have done all that we can when the critic has nothing left to allege except that the investigator is in the trick. But when he has nothing else left to allege he will allege that.

We shall, I hope, make a point of bringing no evidence before the public until we have got it to this pitch of cogency. I think it is desirable on various grounds, but one ground is, I think, this: It is due to the private families or private circles of friends whom we hope to persuade to allow us to take part in their experiments, not to leave the subject or the medium of the phenomena—when we have convinced ourselves, by our own methods, of the genuineness of the phenomena—to bear alone the injurious suggestions of any incredulous materialist who may find it needful to attack our experiments. We must drive the objector into the position of being forced either to admit the phenomena as inexplicable, at least by him, or to accuse the investigators either of lying or cheating or of a blindness or forgetfulness incompatible with any intellectual condition except absolute idiocy.

II.

BY PROFESSOR HENRY SIDGWICK.

December 9th, 1882.

OUR undertaking is so novel, and is still viewed with so much suspicion and disfavour by important sections of the educated world, that it may be well if I take up again the line of thought pursued in my address delivered at the last meeting; and reply to some of the general criticisms on our aims and endeavours that have been offered in somewhat greater abundance since the publication of our first *Proceedings*.

When I say that many regard us with disfavour, I do not mean to imply that the reception of our *Proceedings* has shown this to be the case to a greater extent than I anticipated. Indeed, it has shown the very contrary. The number both of adhesions, and of expressions of sympathy and approval from persons who do not join us, has gone decidedly beyond my expectations. I think the most cautious members of our Council are convinced that the existence of our Society is firmly established; that we are to have a fair field, and a fair hearing from at least a considerable portion of the educated world, by whom whatever work we do will be estimated on its merits without prejudice; so that if we fail to attain our ends, it will be due either to our own deficiencies, or to the peculiar difficulties presented by the matters that we are trying to investigate. It is not, therefore, because we are under any positive necessity of conciliating hostile critics that I wish to reply to their objections; but because, from the nature of our undertaking, it is important that the largest possible number of persons should be induced

to render us at least incidental and casual aid, and also because in our attempt to carry the methods of organised and systematic investigation into ground so little trodden by the scientific investigator, I, for one, feel that we have need of whatever instruction we can derive from any criticisms or suggestions, whether delivered in a friendly or hostile spirit.

For my own part, I should have been glad to learn even from those who treat our endeavours with unmitigated ridicule, holding as I do with Horace that it is quite possible for a jester to speak a seasonable truth. But I have found that the very few persons who, in the Press or in private, have adopted this line of treatment, have been so totally, so ludicrously, ignorant of the facts from which they tried to extract jokes, so utterly unacquainted with the nature of the evidence that, in our view, constitutes a *prima facie* case for serious investigation, that it has been impossible to derive from their utterances anything but amusement—which was, no doubt, what they wished to furnish, though in a somewhat different way. If any person who might otherwise have assisted us could be dissuaded from doing so by the buffoonery of (*e.g.*) the *Observer*, his assistance, I think, could hardly have been of much value.

A graver attempt at dissuasion, which was made by a more important organ of opinion, the *Pall Mall Gazette*, deserves, perhaps, more serious consideration.

On October 21st that journal, in an article written with a great air of scientific culture, urged its readers to abstain from inquiring into ghost stories on account of the dangerous tendency to give them credence which, on the principles of evolution, must be held to exist in our brains. Owing to the many generations of our ancestors who believed in spirits, we retain, it seems, in our nervous mechanism, “innumerable connections of fibres,” which will be developed into superstitious beliefs if we give them the slightest opportunity. Our only chance is to starve these morbid fibres by steadily refusing them the slightest nutriment in the way of apparent evidence. We must “keep clear of the pitch” of superstition if we would avoid defilement. “The scientific attitude can only be maintained by careful abstention from dangerous trains of thought.”

When I read this article I seemed to remember having heard something very like it many years ago, only not quite in the same language. And then it flashed across me that this was the exact counterpart of the dissuasions which certain unwise defenders of religious orthodoxy, a generation ago, used to urge against the examination of the evidences of Christianity. They told us that owing to the inherited corruption of the human heart we had a proneness to wrong belief which could only be resisted by “steadily neglecting to develope” it; that we must keep

clear of the pitch of free-thinking if we would avoid defilement ; that, in short, the *religious* "attitude can only be preserved by careful abstention from dangerous trains of thought." And I remembered the generous and sincere indignation with which our scientific teachers then repudiated these well-meant warnings, as involving disloyalty to the sacred cause of truth, and a degrading distrust of the God-given reason of man : with what eloquence they urged on us to maintain our privilege of free and unfettered inquiry, to keep our minds impartially open to all evidence from all sources and follow our reason whithersoever it led, at whatever sacrifice of long-cherished conviction ; and I thought how the whirligig of time brings round his revenges and how the new professor is "but old priest writ large" in a brand-new scientific jargon.

But it would be a pity to dwell too long on these extravagances, for I do not really think that the article I have referred to represents the view of any considerable number of scientific men—indeed, I do not suppose that any instructed physiologist would gravely discuss the grotesque substitute for original sin which the *Pall Mall* offers us in the shape of superstitious connections of brain fibres. What our scientific opponents for the most part really mean, however contemptuous their manner may be, is not that they will refuse to look at any evidence we bring forward, but that they will require a great deal of very good evidence before they will look at it. Now, I think that their demands in this respect go somewhat beyond the limits of legitimate scientific caution as regards the investigation of thought-reading, of which we gave the results in our last *Proceedings* ; and it might be worth while to try to convince them of this, if all the evidence attainable had been already procured so that the stock could not be increased. But since we have no reason to believe this—since, on the contrary, I hope we shall keep making important additions to the evidence already brought forward—I do not care to dispute with them as to the exact amount necessary for reasonable conviction. I quite agree with them that very strong, very overwhelming, proof is wanted to establish scientifically a fact of such tremendous importance as the transmission of ideas from mind to mind otherwise than by the recognised organs of sense ; and if they will not yield to half-a-dozen decisive experiments by investigators of trained intelligence and hitherto unquestioned probity, let us try to give them half-a-dozen more recorded by other witnesses ; if a dozen will not do, let us try to give them a score ; if a score will not do, let us make up the tale to fifty. The time and trouble will not be thrown away if only we can attain the end.

And here, I think, we may appeal for support to our scientific friends—I mean our scientific enemies, whom we hope to turn into friends—against another class of objectors who are much less difficult to convince of the truth of our conclusions, but are benevolently

anxious that we should not waste our time in establishing them. I meet people in society who talk in this way: they think our evidence for thought-reading looks very strong, and they do not see why there should not be brain-waves or something of the kind ; indeed, they have themselves tried some experiments after dinner at country-houses, which seem to confirm our view ; and as for apparitions at the point of death, they have always thought there was a case for them. But they do not like to see so many superior persons, as they politely say to me, spending a serious part of their time on such matters, instead of writing a commentary on Plato, or studying the habits of beetles, or in some other way making a really useful contribution to science or learning. Now here, as I say, I think we may be content to set one body of our critics to argue against the other. For our really scientific opponents do not for a moment dispute the immense importance of our conclusions, if only they could conceive it possible that they could be established ; they would admit that a man would be fortunate indeed who could hope, in any department of recognised science, to light upon a new truth of anything like equal importance.

And there is another objection, again, to the range we have marked out for our work, which equally misconceives the position we hold in relation to science. Some not unfriendly critics have given us to understand that if we had only confined ourselves to thought-reading, and, perhaps, clairvoyance, and similar phenomena of the mesmeric trance, we might have had their countenance ; but that by taking in haunted houses, spirit-rapping, and so forth, we make ourselves too absurd. And I quite admit that we might have avoided some ridicule by drawing the line as they suggest, but we should have avoided it at the expense of logic and consistency. Observe that we do not argue that all these different kinds of alleged phenomena must stand or fall together, and that by proving the reality of thought-reading we tend to prove the existence of ghosts. That would be a quite unwarranted inference. But we say—and I think any competent scientific authority will support us here—that the general presumption of established science against the possibility of thought-reading or clairvoyance is so strong that it could not be much stronger against any other class of alleged facts ; and, therefore, if we judged it reasonable to disregard it in the former case, on account of the strength of the testimony to actual instances of thought-reading, &c., it would be palpably inconsistent in us to refuse investigation in other cases in which the quantity and quality of the testimony are such as would be conclusive in any matter of ordinary experience. And that the testimony to the so-called hauntings of houses is strong enough to establish a case for investigation on this principle, appeared to us incontrovertible. Of the quality of this testimony the report of our Committee will presently give you a specimen ; but we could not

give you an adequate impression of its quantity if this Committee had the whole time of the meeting at its disposal. And I must repeat, we do not put forward this testimony as amounting to scientific proof, but merely as justifying investigation.

One word, before I conclude, in reference to an objection to one part of our investigation, which proceeds from a very different quarter. There are not a few religious persons who see no reason to doubt the alleged facts of modern Spiritualism, but who regard any experimental investigation of them as wrong, because they must be the work either of the devil or of familiar spirits, with whom the Bible forbids us to have dealings. Now, as regards these Scriptural prohibitions, I think that there is much force in what has been urged by educated Spiritualists—viz., that they relate to a state of things in which the industry of diviners and soothsayers was in distinct rivalry and antagonism to the worship of Jehovah, so that any one who sought their aid tended to be drawn away from his allegiance to the true God; and that therefore such prohibitions should not be considered as directed against the Spiritualistic séance of the present day, provided it is conducted in a right spirit and manner. But with arguments of this kind we have here nothing to do; we have not come to the point at which it is needful to consider them. What we should urge upon our religious friends is that their scruples have really no place in the present stage of our investigation, when the question before us is whether certain phenomena are to be referred to the agency of spirits at all, even as a “working hypothesis.” It must be in the interest of religion no less than of science that this point should be somehow settled, because of the distrust thrown on all human testimony to the marvellous if the existing mass of evidence to these Spiritualistic manifestations is simply neglected; and when we have settled this point, if we should conclude that we have evidence of the existence and operation of extra-human intelligences, then the time will come to consider whether the character of these intelligences is such as to make it desirable to have any further dealings with them. Many of us, I think, will be amply content if we can only bring this first stage of our investigation to something like a satisfactory issue; we do not look further ahead; and we will leave it for those who may come after to deal with any moral problems that may possibly arise when this first stage is passed.

III.

By PROFESSOR HENRY SIDGWICK.

July 18th, 1883.

I SHOULD like to say a few words on an important aspect of the programme and work of the Society, which is liable, I think, to be imperfectly understood by friends no less than by foes. Of the two, it is more important at present that our position should be as thoroughly and as widely as possible understood by our friends—I mean by those who are willing to co-operate with us; since, up to the present time, those hostile to our work have mostly delivered their criticisms from so very broad and distant a view of it, that it would be too sanguine to hope that they could be affected by any explanations of details.

The point to which I refer is our claim to be a scientific society, and to carry on our work in a scientific spirit and by scientific methods. Some not unfriendly critics have urged on me that this pretension is absurd: "You may be right," they say, "but at any rate it is a pitched battle between you and modern science; if you win, modern science will receive a hard blow." If this were true, I for one should entirely decline so unequal a struggle; but we hold it to be the reverse of true. We admit, of course, that the majority of scientific experts still keep aloof from us, and that the agreement of experts is the final test of the establishment of truths;—indeed we may apply to the scientific world what an eminent statesman has said of the political world, that the main duty of a minority is to try to turn itself into a majority. But this is just what we hope to do; not so much by direct controversy, as by patiently and persistently endeavouring to apply to the obscure matters which we are studying methods as analogous as circumstances allow to those by which scientific progress has been made in other departments.

And even now I conceive that the conflict between our view—either the general assumption on which we proceed or the particular facts which our committees claim to have established—and the views of

the majority of scientific men, is really much less profound than many conflicts that go on within the field of recognised science. For there we continually see an internecine struggle of opposing positive doctrines; but what we have opposed to us is not really any positive doctrine or proved method of another school of inquirers—much less any established positive conclusion of science—but mere sweeping negations of persons who have mostly given no study or thought to the matters which they deny; or, at any rate a mere general presumption against what appears to have no affinity to facts already systematised. With the few positive contributions which physicists or physiologists have offered towards the explanation of the phenomena we are investigating, we have no conflict whatever. We recognise in almost all cases a partial truth in such explanations; what we maintain is that a careful comparison of them with the facts shews them to be inadequate.

A very different objection seems to be sometimes felt to our attitude of scientific inquirers by some of the persons who are in the best position for assisting our investigations. I mean persons who believe themselves to have certain knowledge on the most important matters on which we are seeking evidence, who do not doubt that they have received communications from an unseen world of spirits, but who think that such communications should be kept as sacred mysteries and not exposed to be scrutinised in the mood of cold curiosity which they conceive to belong to science. Now we do not wish to appear intrusive; at the same time we are anxious not to lose through mere misunderstanding any good opportunities for investigation: and I therefore wish to assure such persons that we do not approach these matters in any light or trivial spirit, but with an ever-present sense of the vast importance of the issues involved, and with every desire to give reverence wherever reverence is found to be due. But we feel bound to begin by taking these experiences, however important and however obscure, as a part of the great aggregate which we call Nature; and we must ascertain carefully and systematically their import, their laws and causes, before we can rationally take up any definite attitude of mind with regard to them. The unknown or uncommon is not in itself an object of reverence; there is no sacredness in the mere limitations of our knowledge.

This, then, is what we mean by a scientific spirit; that we approach the subject without prepossessions, but with a single-minded desire to bring within the realm of orderly and accepted knowledge what now appears as a chaos of individual beliefs. In saying that our *methods* are scientific, we do not of course pretend to possess any technical knowledge or art, needing elaborate training. "Science," as an eminent naturalist has said, "is only organised common-sense;" and on ground so very new as most of that is on which we are trying to advance, the

organisation of common-sense, which we call scientific method, must necessarily be very rude and tentative. Indeed, the value to us of the scientific experts whom we are glad to count among our number depends much less on any technical knowledge or skill than on the general habit of mind—what I may call the “higher common-sense”—which their practice of scientific investigation has given to them; somewhat greater readiness and completeness in seeing considerations and adopting measures which, when once suggested, are not only intelligible, but even obvious, to the common-sense of mankind at large.

For instance, nothing can be more obvious than the need of making as systematic and extensive a collection of facts as possible; partly in order to establish as fact what, we believe, can only be established by such an accumulation of evidence; and partly in order to obtain by classification a general view of the leading characteristics of the facts, so that we may be started in a right direction for investigating their conditions. But this need does not seem to be thoroughly understood. Thus a representative of the intelligent public has informed us that we have now given facts enough, and that the intelligent public now demands from us a satisfactory theory of them. Speaking for myself, I am afraid I must ask the intelligent public to restrain its impatience for a year or two more: a restraint which hardly ought to be difficult, considering the length of time for which it has remained in a state of contented nescience on these subjects. Again, a friend who has sent me a valuable first-hand narrative of Thought-transference at a distance, has thought it needful to apologise, on the ground that we “must be inundated with these stories.” Well, it is in one sense true that we are inundated; the stream of them keeps flowing in more strongly than I had anticipated; but we wish to be still more inundated—the tide is a favourable one and it cannot rise too high for our purposes.

And this leads me to speak of the desire which the Council entertain to get as much co-operation as possible in the experimental work of the Society. We have endeavoured by the “Circular No. 1,” printed in our last *Proceedings*, to stimulate the formation of local committees and independent centres of investigation in the subjects, especially, of Thought-transference and Mesmerism. I am sorry to say that this circular has so far produced little effect: I wish, therefore, earnestly to call the attention of our members to it, and emphasise our desire for the kind of co-operation which it suggests. Any great increase in the numbers of the committees appointed by the Council seems undesirable: but these committees would be glad to give the benefit of their experience, in any way that may be desired, to any local committees that may be started on an independent basis for this kind of research—or supposing such local committees to prefer complete independence, we should be no less glad to avail ourselves of their results. In short,

if any member or associate of our Society feels moved to assist in any part of our work, and does not find that the circular to which I have referred gives him sufficient guidance as to the best method of doing this, he has only to write to the secretary of the committee whose sphere of operations interests him most, and the committee will do their best to find for him a useful line of co-operation.

I have said that we cannot have too many well-attested narratives or records of experiments, even with a view to establishing the general trustworthiness of the results. The reason for this lies in the impossibility, or extreme difficulty, of absolutely excluding, in any one case taken by itself, explanations of the phenomenon recorded which refer it to causes already recognised by science. This leads me back to the question of the scientific method of dealing with the evidence attested; as to which, again, we find ourselves in *prima facie* opposition with the majority of scientific men. But here, again, as I have said, the opposition does not arise from any general unwillingness on our part to accept the explanations of our opponents; on the contrary, we are especially anxious to give them all due weight in the collection and treatment of our evidence. We only refuse to admit them where we find that the hypotheses manifestly will not fit the facts.

Thus, *e.g.*, before coming to our conclusion as to Thought-transference we considered carefully the arguments brought forward for regarding cases of so-called "Thought-reading" as due to involuntary indications apprehended through the ordinary senses; and we came to the conclusion that the ordinary experiments, where contact was allowed, could be explained by the hypothesis of unconscious sensibility to involuntary muscular pressure. Hence we have always attached special importance to experiments in which contact was excluded; with regard to which this particular hypothesis is clearly out of court.

Again, take Faraday's well-known experiments on table-turning. I have no doubt that Faraday rendered a real public service in preventing ignorant persons from supposing an unknown force required to explain the turning round of a drawing room table when a group sit down to it in an evening party. And if the eminent physicist had been able to explain, in the same simple and effective way, the rarer but yet strongly attested cases in which tables are reported to have moved without contact, or to have risen altogether off the ground, he would have really "exploded the whole nonsense" of table-lifting. But we submit that it is not a scientific way of dealing with a mass of testimony to explain what you can, and say that the rest is untrue. It may be common-sense; but it is not science.

Here, however, our more careful opponents, when they cannot find a physical explanation for the facts related, fall back on various psychologi-

cal explanations of the fact that they are related. They say that the reporters have been deceived by "conjuring tricks" or illuded by "expectant attention," or led into involuntary exaggeration from the impulse to entertain their hearers with marvels, or have laid undue stress on accidental coincidences, through oblivion or non-observation of instances on the other side:—or when there is nothing else left they simply say, with more or less polite circumlocution, that we or our informants must be telling lies.

Here, again, we admit that every one of the suggested causes—not excluding the last—has been, in the history of human delusion, a *vera causa* of marvellous narratives; and the whole detail of our procedure in the different departments of our inquiry is governed by the need of carefully excluding them. What we venture to think unscientific is the loose way in which our opponents fling them about, without any proper attempt to determine the limits within which they are probable.

Thus, *e.g.*, when a man pays a guinea to attend a spiritualistic exhibition in a room over which the recipient of the money has perfect control, it is reasonable to attribute to preparation and sleight of hand whatever of the results could be produced by a professional conjurer on his platform; but it is not, therefore, equally probable that similar results in a private dining-room are due to the hitherto latent conjuring powers of the housemaid. When a man goes to a house which he knows to be haunted, it is not a noteworthy fact that he dreams of a ghost; or even if he lies awake at night in a nervous condition, he is likely to mistake the rattle and sigh of the wind for evidences of ghostly visitants; but it is not, therefore, plausible to refer to "expectancy" apparitions for which the seers are wholly unprepared, and which they at first take calmly for their relatives. When a marvellous story is told after dinner by a person who heard it from a friend of the cousin of the man who was actually there, we may reasonably suppose that an indefinite amount of thrilling detail has been introduced in the course of tradition,—especially if the links in the chain of tradition are supplied by persons who are not accustomed to regard scientific accuracy as important in these matters; but it is not therefore legitimate to explain in this way a narrative which is taken direct from the diary of the original eye-witness. We may ultimately be able to shew that the whole mass of evidence presented to us under each of these heads is clearly explicable by causes which all will admit to be natural: but I cannot think that this result will be attained without a more careful and patient examination of the evidence than our critics deem it worth while to give.

For the purpose, then, of this examination, our primary endeavour is to collect phenomena, where explanations like those above mentioned have at least a high degree of improbability. In no single case can the

inadmissibility of such explanations be absolutely excluded—not even in the case of our own most conclusive experiments, when regarded from the point of view of the outside public. For all records of experiments must depend, ultimately, on the probity and intelligence of the persons recording them ; and it is impossible for us, or any other investigators, to demonstrate to persons who do not know us that we are not idiotically careless or consciously mendacious. We can only hope that within the limited circle in which we are known, either alternative will be regarded as highly improbable.

IV.

By PROFESSOR HENRY SIDGWICK.

May 28th, 1884.

THE last time that I addressed you at any length I endeavoured to define the nature and grounds of our claim that we are investigating in a scientific manner phenomena which in the recent progress of physical science have been too long and too persistently neglected. Since then, in consequence of an article which has appeared in the *Nineteenth Century* by two of my colleagues, and of a lecture which I was expressly asked to deliver on this subject at the London Institution, some discussion of our work from this point of view has been carried on in journals that are for the most part hostile to our endeavour; and it appears that I might with advantage take up again the subject that I dealt with about a year ago, and make one or two more remarks on our general scientific position. In so doing I have no intention of occupying your time by any comments on the misrepresentations of fact or the blunders in logic which our opponents have committed: our aim, in my opinion, should rather be to consider whether we can learn anything from our critics—even from ignorant and prejudiced critics—which may assist us in the novel and difficult work in which we are engaged. We may at any rate see what appear to the careless glance of outsiders to be the weak points of our position, and give them a careful reconsideration.

The first point that it is important to get clear is the exact relation in which the conclusion that we have, to our own satisfaction, established, stands to the generally accepted conclusions of physical science. Is it true, as an opponent has asserted, that if Thought-transference, as affirmed by our Committee, were admitted to be a fact, “physiology would be overthrown”? The statement might pass as a loose and hasty way of characterising the extreme strangeness of our results; but I cannot conceive its being deliberately maintained by anyone actually acquainted with physiological investigation. An instructed physiologist

would know that supposing it generally accepted that ideas and feelings can under certain special and rare conditions be conveyed from one mind to another otherwise than by the recognised channels of sense, all ordinary physiological research would go on exactly as before. No "working hypothesis" of physiological method would have to be abandoned; no established positive conclusion of physiological inquiry—nothing that has been ascertained as to the nature of the process by which visual, auditory, tactile, or other sensations and ideas are ordinarily produced in the mind—would have to be modified. What would have to be given up would be merely the single negative conclusion that ideas and sensations could not be transmitted from one mind to another except in certain ways already known. It was very natural for physiologists to form this conclusion provisionally in default of evidence to the contrary; but to abandon it in view of the presentation of such evidence would be a mere enlargement, not in any sense an overthrow of existing physiology.

The question, then, is merely whether evidence enough has been produced. And here I have always admitted, and indeed emphatically maintained, that what we allege to be facts are so contrary to the analogy of experience—at least so far as experience has been systematised by science—that until a large number of mutually corroborative testimonies are collected we cannot expect the scientific world to be converted; they will say, and reasonably or at least plausibly say, that it is less improbable that the testimony to these facts should be false than that the facts as testified to should be real. And I think that the case is one in which no one can say exactly how much evidence is wanted; we have to balance conflicting improbabilities; and the improbabilities are of a kind that we have no scales to weigh exactly. Indeed the improbability on one side necessarily appears greater or less to different persons, according to what they know of the witnesses personally. Hence though I am myself convinced of the trustworthiness of our records of experiments, I do not complain that other persons who do not know the witnesses are not yet convinced. And I have always been anxious to urge on our members and friends—many of whom are rather inclined to think that we have already collected facts enough to convince a "fair mind"—that we cannot precisely define the requirements of a fair mind in dealing with matters so unfamiliar; and that we ought to continue patiently piling up facts and varying the observers and conditions, until we actually get the common sense of educated persons clearly on our side.

At the same time, I am obliged to add that none of our critics appear to me to appreciate the kind and degree of evidence that we have already obtained. They often imply that the experiments in Thought-transference are such as could be performed by "cheating mediums or

mesmerists," by the simple means of a code of signals which the investigating committee cannot find out; quite ignoring such cases as that given in Part I., pp. 22-3, where the cards guessed by one of the Creerys were unknown to any one but the four strangers who went to witness the experiment; and where, therefore, as I have before said, the investigators must either have been idiots, or one or other of them in the trick. Similar remarks may be made about the experiments reported in the last part of our *Proceedings*; where four or five different persons must either have been guilty of untruthfulness or collusion, or of most abnormal stupidity, if the phenomena were not genuine.

Again, our opponents leave out of account that besides our own experiments in Thought-transference between persons in a normal condition, and the records of spontaneous telepathic phenomena, "apparitions, &c.,"—of which we have collected a very large number on first-hand evidence—we have the experiments in Thought-transference in the mesmeric state, in which we have only obtained over again results repeatedly affirmed by others. And here I think we may put forward an irresistible claim that this mesmeric evidence of a generation ago, which undoubtedly failed to satisfy orthodox medical opinion at the time, should be carefully reconsidered; the ground of our claim being the now universally admitted fact that in the controversy which took place from 1840 to 1850 between the mesmerists and the accredited organs of medical opinion, the latter were undoubtedly to a great extent wrong; that they repudiated sweepingly an important part of the phenomena reported by the mesmerists, which no instructed person now denies to be genuine. No instructed person now questions the genuine reality of the hypnotic or sleep-waking state as a special abnormal condition of the human organism, in which the hypnotised person is, in a quite peculiar way, subject to delusions suggested to him from without, and can in some cases be made as perfectly insensible to pain as he can by inhaling chloroform or laughing gas. But at the time I speak of the *Lancet* and other medical organs refused to admit the genuineness of these phenomena, as decidedly as any of them now refuses to admit the reality of community of sensation. When the most painful surgical operations were successfully performed in the hypnotic state, they said that the patients were bribed to sham insensibility; and that it was because they were hardened impostors that they let their legs be cut off and large tumours cut out without showing a sign even of discomfort. At length this unbelief, in all but the most bigoted partisans, gave way before the triumphant success of Mr. Esdaile's surgical operations under mesmerism in the Calcutta Hospital: and hence, when subsequently a German professor (Heidenhain) reported that he had obtained results similar to Braid's,—which had been previously neglected,—orthodox medical science willingly

allowed the hypnotic state to take a recognised place in physiological works. The existence, indeed, of a peculiar *rapport* between the mesmeriser and his patient—such as the transference of sensation manifests—has still the weight of medical authority against it; but this weight is surely diminished by the fact that it was so long and obstinately thrown into the wrong scale as regards the hypnotic state generally.

When confronted with this mass of testimonies, the argument of our opponents sometimes takes a new turn. They say that our very demand for *quantity* of evidence shows that we know the *quality* of each item to be bad. But the quality of much of our evidence—when considered apart from the strangeness of the matters to which it refers—is not bad, but very good: it is such that one or two items of it would be held to establish the occurrence, at any particular time and place, of any phenomenon whose existence was generally accepted. Since, however, on this subject the best single testimony only yields an improbability of the testimony being false that is outweighed by the improbability of the fact being true, the only way to make the scale fall on the side of the testimony is to increase the quantity. If the testimony were not good, this increase of quantity would be of little value; but if it is such that the supposition of its falsity requires us to attribute abnormal motiveless deceit, or abnormal stupidity or carelessness, to a person hitherto reputed honest and intelligent, then an increase in the number of cases in which such a supposition is required adds importantly to the improbability of the general hypothesis. It is sometimes said by loose thinkers that the “moral factor” ought not to come in at all. But the least reflection shows that the moral factor must come in in all the reasonings of experimental science, except for those who have personally repeated all the experiments on which their conclusions are based. Any one who accepts the report of the experiments of another must rely not only on his intelligence but on his honesty; only ordinarily his honesty is so completely assumed that the assumption is not noticed.

Here, however, some say that we ought to get evidence that can be repeated at will; that they will not entertain the idea of “rare, fitful and delicate” phenomena which cannot be reproduced at will in the presence of any number of sceptics. But I have never seen any serious attempt to justify this refusal on general principles of scientific method. The phenomenon of Thought-transference—assuming it to be genuine—depends *primâ facie* on the establishment of a certain relation between the nervous systems of the agent and percipient respectively; and as the conditions of this relation are specifically unknown, it is to be expected that they should be sometimes absent, sometimes present, in an inexplicable way; and, in particular, that this peculiar function

of the brain should be easily disturbed by mental anxiety or discomfort of any kind.

Still we should be very glad to get evidence of this kind ; we ought to relax no effort to obtain it. And one special source of interest for us in the marvels related by the Indian Theosophists—with whose doctrines, I may remark, we are in no way concerned—lies in the fact that they are alleged to consist largely in the production at will of “telepathic” phenomena ; similar in kind to those of which, as occurring spontaneously, a large collection has been made by our Literary Committee.

V.

BY PROFESSOR BALFOUR STEWART, F.R.S.

April 24th, 1885.

YOU will permit me on this occasion to allude to the great loss which our Society has sustained in the resignation by Professor Sidgwick of the office of President.

I cannot imagine one better fitted than our late President to develop into vigorous action a struggling body such as ours, and we must all feel deeply grateful to him for his successful accomplishment of this object.

He has procured the recognition by men of education of a society whose advent was at first somewhat coldly welcomed by the fraternity of knowledge.

Under these circumstances everything depended on the choice of guardians for the infant Society. Had it been injudiciously led it would certainly have proved a failure, and have thus strengthened the widespread belief that no good result is to be obtained by discussing subjects of a certain class. But things have happily turned out far otherwise, and the recognition which our Society enjoys to-day is greatly due to its guidance by a President and officers who, through a happy mixture of boldness and prudence, carried energetically into action, have succeeded in bringing it into its present position. Professor Sidgwick's benefits to the Society were not merely those of a wise and energetic guidance of its affairs. He was unsparing in every sense where he felt that the interests of the Society required support, and he is not only our first and honoured President but one of our chief benefactors.

Success of this nature cannot be equalled or even approached. But it is not, therefore, with a feeling of despair that I commence this evening the duties of the office with which I have been honoured, knowing that gratitude to my predecessor should prompt me to give

him what relief I can, and to do what I can for the benefit of a Society which has strong claims upon all who are desirous to promote knowledge.

It may not be out of place to bring before you a few statistics of our progress.

A preliminary conference was convened by Professor Barrett (whom we honour as our founder) on the 5th and 6th of January, 1882. At this meeting a Committee of sixteen were appointed, to which a few additions were afterwards made.

The Society was next formally constituted in accordance with the report of the Conference Committee at an adjourned meeting of the Conference held on 20th February, 1882, the Committee being constituted as the Council of the new Society under the presidency of Professor Henry Sidgwick.

At the first meeting of the Council, held on the 3rd March, 1882, a number of proposals for election were brought forward, and at its second meeting on the 17th March, 20 Members and 11 Associates were elected.

At the end of 1882 the total number of the Society was 150 ; at the end of 1883 it was 288 ; at the end of 1884 it was 520 ; while at the present moment the total number is 586.

If these results are very encouraging as regards numbers it is a source of equal gratification to think that men of the highest standing in all departments of knowledge have consented to join our ranks ; and you have been already informed by Professor Barrett that a kindred Society has recently been started in America under very favourable circumstances, embracing, likewise, amongst its members men of the highest attainments and standing.

In reply to the question, what has the Society done ? I may state that since its commencement it has issued seven parts of *Proceedings*, of which a total number exceeding 12,000 has been distributed to Members and others, placed in public libraries, sent for review, and sold through the ordinary channels. An eighth part will be published very shortly.

Early in 1884 a *Journal* was commenced, which has been continued monthly for private circulation amongst members.

In the autumn of last year a Report of the Committee on Theosophical Phenomena was issued for private circulation only.

A large number of slips has also been printed comprising a selection of the evidence collected in the various departments of inquiry.

All these schemes could not have been carried out by means of the ordinary income of the Society, and their successful accomplishment is due to the fact that we have Members who are willing not only to

devote their time and energy, but likewise their private means, to the advancement of our interests.

The cost of the slips of printed matter and of the Theosophical Report was borne by our late President. The printing of the slips is now suspended, it being intended to publish selections from the evidence in the *Journal* of our Society. Professor Sidgwick has meanwhile agreed to be editor of the *Journal*, nor while devoting his time in this way to the service of the Society has he discontinued his former liberality, but rather transferred it into this new channel.

The library of the Society consists of more than 800 volumes, of which about 250 are French and German works. A great many of the English books have been presented through the kind liberality of Members and friends.

I have read with much interest in the pages of our *Journal* a correspondence between our Secretary, Mr. Gurney, and Professor Newcomb, the distinguished President of the American Psychical Society.

It would appear from this correspondence that there is a perfect agreement as to the great importance of studying experimentally the subject of thought-transference.

To my mind the evidence already adduced is such as to render highly probable the occasional presence amongst us of something which we may call thought-transference or more generally telepathy ; but it is surely our duty as a Society to continue to accumulate evidence until the existence of such a power cannot be controverted. We have not been remiss in this respect, and it will be found from the pages of our *Proceedings* that the main strength of our Society has been given to prove the existence of telepathy, in the belief that such a fact well established will not only possess an independent value of its own, but will serve as an admirable basis for further operations.

But our Society has not only its staff of observers and experimenters, it has likewise its literary staff, whose duty it is to collect and scrutinise the existing evidence on the various subjects embraced in Psychical Research. Now, it would appear to me to be the one unpardonable offence if this Literary Committee were to decline to invite, to listen to, to examine, or to register the contemporaneous evidence on any branch of psychical inquiry.

It is no doubt quite conceivable that after a quantity of evidence on some subject has been collected, the result of its discussion should prove that there is nothing in it worth inquiring into, at least nothing new. But a definite settlement, even of a negative character, is not without its value, and this can only be obtained as the result of an exhaustive discussion. On the other hand it is conceivable that the result of such a discussion may be the establishment of new facts

eminently worthy of record, and the next generation of our Society would greatly blame the present if we declined to bring together, examine, and register the contemporaneous evidence, so as to fit it, if not for our own final discussion, at least for that of those who shall come after us.

But perhaps the best justification of the labours of the Literary Committee is to be found in what they have already done. As regards apparitions at the moment of death, I will quote the following statement by Mr. Gurney: "We have," he tells us, "collected more than a hundred first-hand cases of apparitions closely coinciding with the time of death of the person seen; and it is only in a small minority of such cases that our informants, according to their own account, have had any other hallucination than the apparition in question." The great importance of this statement will be manifest to all.

It has, however, been objected that the evidence brought forward by this Committee is a mixture of the strong and the weak; and some have even hinted that the effective strength of such evidence is that of the weakest portions of it. As I know from experience that this mixed character is a stumbling block to many, I will take the present opportunity of repeating what cannot be too widely known—that the Literary Committee are themselves very well aware of this difference between the various items of evidence which they have brought together. Some of these are regarded by them as peculiarly of an evidential nature adapted to force conviction into the minds of those who are sceptical. Other items again, while deficient in this respect, may yet be of importance in bringing out the laws which regulate these strange phenomena. For example, the question, Do apparitions of the dying actually occur? is to be replied to by quoting evidence of one kind while the question as to the exact meaning of these appearances, and their possible relation to telepathy, is to be replied to by evidence of another kind less important, perhaps, in its value as regards those who are unconvinced. Similar rules apply to all branches of knowledge.

The thanks of our Society are due to Mr. Myers for the pains he has taken in classifying the various items, and it is, indeed, abundantly obvious that without such a preliminary process the full value of the evidence could not possibly become known.

I have dwelt at some length on this subject because of its importance, and because the public are, perhaps, apt to attach too exclusive a value to the experimental part of our work. I have fully recognised the claims of the experimental part; we need in it far wider assistance—especially in the way of systematic trials of thought-transference in private—than we have yet received. But none the less, I think, must, the codification of the current evidence be looked upon as a pressing and paramount duty.

We may be told in the kindest manner that there are regions which it is utterly hopeless to approach—groups of recurrent phenomena so wrapped about with the garments of confusion that we cannot possibly disentangle them so as to find whether there is anything new in them or not.

Our reply to such remarks should not be doubtful. It ought, I imagine, to consist in a prompt refusal to believe in the existence of any such region or of any such phenomena. Is it not at once the privilege and the duty of the human intellect to gain, as time goes on, a clearer and still clearer insight into the principles which underlie all terrestrial occurrences? The ultimate explanation of certain classes of these may, no doubt, be different from what we imagined on our setting out. This, however, is not the question.

The point is, rather, whether there exist around us groups of recurrent terrestrial phenomena which it is utterly hopeless to grapple with. Surely there is only one proper way of replying to this suggestion, and that is by making the attempt. Everything is possible to courage and prudence, coupled with perseverance. Such qualities will enable us to overcome the preliminary Dragon which guards the entrance to these interesting regions, and our united efforts will ultimately result in obtaining for us the golden apples of truth.

VI.

By PROFESSOR BALFOUR STEWART, F.R.S.

April 23rd, 1887.

LET me begin my few remarks by congratulating the Society on the recent publication, under its auspices, of *Phantasms of the Living*, in two goodly volumes. I esteem this to be a great work; and if, in a sense, it may be regarded as a preliminary discussion, it is not because the materials are so meagre, but because the subject is so large. For my own part, I conceive that the evidence for spontaneous telepathy is extremely strong—that it forms, perhaps, the strongest class of evidence that our Society has yet dealt with. A praiseworthy attempt has been made in these volumes to put part of this evidence into a numerical form, and to demonstrate the very great improbability of the recorded coincidences being due to chance. In view of the fact, never before precisely established, that purely subjective hallucinations of sane persons are by no means extraordinary or extremely rare occurrences, this calculation was a necessary part of the argument. My belief is, however, that the strongest evidence is of such a nature that it cannot easily be clothed in numerical garments. Between a recorded vision and the death, let us say, of a distant friend, there are other points of coincidence than that of time; frequently, for instance, there are curious circumstantial similarities, such as have been described in these volumes, but of which the evidential strength cannot well be expressed in numbers, although we know that this must be very great.

I may here be allowed, with reference to our Society and its prospects, shortly to review the present position of those departments of science with which we are most familiar, as well as the attitude assumed by the various scientific workers. First of all, we see the youthful acolyte driven to science by the operation of an uncontrollable instinct that selects for him not only the spot where he shall begin his mental labours, but the tools and the materials which he shall employ. Here he works indefatigably, adding with sure but cautious hand stone upon stone to his corner of the great temple of knowledge. Casting

his eyes around him, he sees fellow workers not far distant doing the same thing, each equally busy in his own little corner.

Now each of these workers may have only a very dim conception of the shape and features which the completed building will ultimately assume. But yet there is no doubt in the mind of each that these various little works will so fit in with one another as to form one grand and harmonious whole. Were we to clothe this belief in Theistic language it would imply, amid great darkness, a trust nevertheless in the unity of design of the Great Architect from whom each worker has received his commission. It would imply, moreover, a trust of each in his fellow workers, a species of faith without which it would be impossible to rear any great and glorious temple, or indeed, for that matter, to do anything else worth mentioning in the world.

What I have now described is the state of mind towards his fellows and towards his work of each individual in a group of builders engaged in some particular corner of the great work-field. We have seen that there is belief in his work and belief in his fellow-workers. But there are many such groups, some of them very remote from others, and the feelings entertained by the members of one group for those of a distant group are not always so satisfactory. It may be that the microscopical intentness with which the man of science has to regard his near environment tends to disqualify him from properly appreciating distant objects. Be this as it may, the members of one group are too apt to disregard the labours of another and distant group, and to imagine either that they are not building at all or that they are not building anything that will last. There is, in fine, a comparative inability to see that the distant group are engaged equally with themselves in advancing the same great work.

If I have made myself clear, it would seem that there is a strong practical faith amongst the neighbouring workmen in each department of science, and an equally strong assurance that their united labours will ultimately have an issue larger than any one of them can realise. There is not, however, the same assurance that the various groups of workers are equally trustworthy, and that all are striving with earnestness and success to yield their contributions to the same great cause. Philosophy has, if I mistake not, her part to play amongst these workers. I do not, I must confess, think that the union between philosophy and science has hitherto, as a rule, been sufficiently intimate. Philosophers have, as I think, too exclusively concerned themselves with successfully deepening and enriching our conception of the universe as a whole, and hence have not taken sufficient pains to see that scientific workers have been duly permeated with the spirit and doctrines of a true philosophy. One feels almost tempted to apply to

some of them the lines of the poet, who, after describing the huge works erected by the fallen angels and the great projects entertained by them, proceeds thus to describe the philosophers of the party :—

Others apart sat on a hill retired,
In thoughts more elevate, and reason'd high
Of providence, foreknowledge, will, and fate,
Fix'd fate, free will, foreknowledge absolute,
And found no end, in wandering mazes lost.

But I would not have you suppose that I mean to make a sweeping charge against all philosophers. There are some who have come down from those elevated regions on which they have obtained a clear insight into the great temple of knowledge, to enforce their views upon the individual scientific workers, amongst whom they have played the part of generals and directors of labour. Indeed, I believe that our Society owes its success in a great measure to this action of our first President, who, while much distinguished as a philosopher, has not only successfully enforced the claims of psychological research upon the regard of men of science, but has likewise taken a personal part in the scientific labours of our Society.

You will perceive by these few remarks that while, as I think, there is not yet a complete unity of purpose or action between the scientific workers in distant fields, yet the time is rapidly approaching when this union will be more complete, and when (to use a technical term) the diminution of internal friction will set so much more energy free towards the completion of the one great and glorious work. To vary the metaphor, we see before us at present a number of separate rivulets of knowledge each rushing along impetuously within well defined granite walls. Let us, however, pursue the course of these rivulets sufficiently far and we shall find that they will ultimately merge into one great and mighty river of knowledge, bearing on its bosom the means of intercommunion between distant regions, with fulness in all its borders. I anticipate, therefore, at no distant period the full recognition of our labours by men of science in general; but here I pause to notice a friendly objection that has been raised to the work of our Society.

It has been urged that we have not succeeded in formulating in precise language laws which might embrace the various facts that we have brought to light. This objection was raised before the publication of *Phantasms of the Living*; but I cannot think that it will be maintained by anyone who has read this work. The shadowy form of a great reality is looming through the darkness, and at least two speculators are busy, each from his own point of view, endeavouring to render the outlines clearer. Can we expect such a work to be definitely completed in a day or a year? It ought not to be forgotten that there are several possible explanations of the facts recorded, and of these some

are less likely than others to yield us laws capable of definite expression, or at least of definite numerical expression. For what is the phenomenon before us? Adopting the well-known, and not, I think, unscientific terms, mind, body, and medium, we find in these volumes that an affection of the mind and body of A produces an affection of the mind and body of B by some unknown means, and often at a great distance. Now there are at least three conceivable hypotheses by which this action may be explained :—(1) The mind of A may act directly upon the mind, and through it upon the body, of B ; or, (2) the mind of A may act directly upon the body, and through it upon the mind, of B ; or, (3) the body of A may act in a peculiar manner upon the medium, and the medium may act upon the body, and through it upon the mind, of B. If the last hypothesis be correct, we may confidently hope to obtain something approaching numerical laws ; but if the first hypothesis be true, it is more difficult to entertain this hope.

At present we should have three simultaneous objects in view. First of all, we must accumulate evidence ; secondly, we must sift it ; while in the third place we should discuss and speculate upon the confirmed evidence in the freest possible manner. I cannot doubt that the truth will ultimately emerge from such a discussion, pursued with sufficient energy and perseverance.

Before concluding, I should wish to say a few words about another branch of our programme of inquiry which has assumed considerable prominence in the *Journal* and *Proceedings* during the past year—I mean the phenomena of so-called Spiritualism. Those who are known as Spiritualists maintain two things. They assert in the first place the existence of certain phenomena, while in the second place they maintain that the simplest and most natural, if not, indeed, the only legitimate explanation of these involves the existence of spirits which are permitted on certain occasions to hold intercourse with man.

I need not say that many of us believe in the existence of other intelligent beings besides man, unseen by us as a rule, and in all probability superior to us in mental rank. Many, too, believe that the denizens of the spiritual world are not indifferent to our welfare, and that we frequently receive aid from them in important crises of our mortal life, while others are not unwilling to solicit such aid. But probably all are agreed that, assuming the existence of spirits, there is, at least, as great a variety of character amongst the inhabitants of the unseen world as amongst ourselves, if, indeed, the range of character be not much greater, extending upwards to heights of goodness which we cannot reach, and downwards to depths of guilt and ignominy which we cannot fathom.

Many will argue that under these circumstances we must so guard ourselves in our intercourse with the spiritual world as to be certain

that our advances will only be responded to by the good. And unquestionably a bad man who appeals to evil spirits to help him in his wickedness deserves the reprobation of humanity, even although his advances may not meet with any response. The attempts of the modern Spiritualists to hold communion with the denizens of the unseen belong to neither of the categories now mentioned. They are not the appeals of poor humanity for spiritual help from good angels, and unquestionably they are not the endeavours of the wicked to procure assistance from the powerful and the bad. There is, as a rule, hardly any moral colouring about them; and the Spiritualists may be regarded as a society endeavouring to obtain conclusive proof of the existence of spirits, rather than a confederacy to elicit spiritual aid in the affairs of life. Now I have tried to show in these remarks that an indispensable condition of progress in any branch of science is mutual co-operation and confidence between the various members of that branch. A man must trust his fellow-workers, otherwise he will not be able to advance the department of knowledge to which he has devoted himself. And if our object be to receive scientific evidence of the existence of spirits, this assumes co-operation between ourselves and these intelligences. But here we have no guarantee for character such as we have a right to demand from our fellow-workers in science. We know very well that our comrades, in any ordinary branch of science or knowledge, are perfectly honest, and that their object is to advance that branch. But assuming for the sake of argument that we can communicate with spirits, what proof have we of their honesty, or how do we know that their object, as well as ours, is to obtain for us good evidence of their existence? Some of us may be disposed to question the likelihood of man being permitted in his present state to obtain at will scientific evidence of the existence of spiritual beings. The spirits with whom I assume, for the sake of argument, that we are brought into contact, may neither have the power nor the will to prove their existence as a scientific fact, and yet they may have the power of leaving the door of evidence partly open. We may in truth be dealing, not so much with willing coadjutors that will assist us in throwing this door completely open, as with versatile opponents who will equally oppose all attempts either to throw it completely open or to keep it definitely shut. In fine, we are not sure that this research will ever be decisive or that we shall be able to prove either an affirmative or a negative.

It is not necessary to discuss the question whether one who has satisfied himself that he is in communion with spirits is acting wisely in continuing the intercourse. We have not, I imagine, as yet progressed sufficiently far to entertain this question. The problem at present before us is, to determine whether certain alleged phenomena

do or do not occur, and then, presuming, for the sake of argument, that this question is decided in the affirmative, to give an opinion whether it is not the simplest explanation of these to suppose them due to spiritual agency. Unquestionably, certain members of our Society are in a good position to afford help in settling these questions, for they are skilled and well practised in examining evidence, and they are likewise capable of deciding whether telepathy or some extension of it may not account for the phenomena without the necessity of resorting to the hypothesis of spiritual agency ; and our friends the Spiritualists are, I think, perfectly justified in challenging us to undertake this business of investigation. There are, however, reasons why the Committee who undertake the task should rather be one requested by the President to act than a formal committee of our Society. Under these circumstances I have requested the following gentlemen to take part, with myself, in a Committee of this nature, with the view of investigating the reality of such alleged Spiritualistic phenomena as may be brought before them :—Mr. W. Crookes, F.R.S., Professor O. J. Lodge, Professor Barrett, Mr. Angelo J. Lewis, Mr. E. Gurney, and Mr. F. W. H. Myers. These have all agreed to serve ; and surely the composition of the Committee is such that they may be trusted to examine in a receptive and impartial manner any evidence submitted to them, as well as to detect any attempt at imposture that may be practised upon them. Such attempts are greatly to be regretted ; but we must perhaps expect them to cling more closely to a subject of this nature than to the ordinary branches of human knowledge.

VII.

By PROFESSOR HENRY SIDGWICK.

July 16th, 1888.

It has for some time been my intention to take this opportunity—this being my first formal address to the Society since I became President a second time—to survey briefly the course that our Society has travelled since its foundation in 1882; to recall what we proposed to do and compare it with what we have done; to ask if we have realised our aims, and so far as we have not realised them, why we have failed:—and then, turning from the past to the future, to consider the work that now lies before us, and our prospects of accomplishing it satisfactorily. To me it appears that we have reached a crisis in our history—not perhaps a very critical crisis, rather one likely to be prolonged and mild—but yet a crisis of which it is important that we should thoroughly understand the nature, in order that we may guard against the dangers it involves.

This I had intended, and this I still propose to do, though I find that the subject is too large to be included within the limits of a single address; and I shall therefore reserve an important part of what I proposed to say for another occasion. But I little thought when I formed my plan, that the past I proposed to survey would be divided from the future by such a chasm as now divides it in the minds of us all—through the calamity that has deprived us of the colleague and friend who had so large a part in shaping the lines of this past. Of the irreparable nature of this loss it would be impossible for me to say what I feel, without tending to spread a discouragement which I would rather wish to overcome—since our cause was never more in need of hopeful and vigorous exertion. Nor do I propose now to characterise more particularly Edmund Gurney's share in the work of the last six years. A careful and full estimate of that will be given in the next number of our *Proceedings*, by the colleague who is of all the best

qualified to give it. In my survey this evening I shall speak generally of "our" work; but it will be present throughout to your minds as to mine how largely this is the work of a vanished hand,—a hand whose combined vigour and delicacy, and trained skill and indefatigable industry, we must miss at every turn of the further labour that lies before us if we are to complete our task.

To pass, then, to my survey.

When we—that is, the group of inquirers to which I belong, for I do not of course presume to speak in the name of the whole Society—when we took up seriously the obscure and perplexing investigation which we call *Psychical Research*, we were mainly moved to do so by the profound and painful division and conflict, as regards the nature and destiny of the human soul, which we found in the thought of our age. On the one hand, under the influence of Christian teaching, still dominant over the minds of the majority of educated persons, and powerfully influencing many even of those who have discarded its dogmatic system, the soul is conceived as independent of the bodily organism and destined to survive it. On the other hand, the preponderant tendency of modern physiology has been more and more to exclude this conception, and to treat the life and processes of any individual mind as inseparably connected with the life and processes of the shortlived body that it here animates.

I do not, of course, say that all scientific men affirm the non-survival of the soul: I speak only of general tendencies, and that it is the general tendency of modern science to exclude the thought of this survival, I cannot doubt.

Well, the division and conflict thus established between religion and science has long given serious concern to thoughtful minds; and many intellectual methods of reconciling the conflict have been tried; but still, speaking broadly, it remains, a great and prominent social fact of the present age.

Now our own position was this. We believed unreservedly in the methods of modern science, and were prepared to accept submissively her reasoned conclusions, when sustained by the agreement of experts; but we were not prepared to bow with equal docility to the mere prejudices of scientific men. And it appeared to us that there was an important body of evidence—tending *prima facie* to establish the independence of soul or spirit—which modern science had simply left on one side with ignorant contempt; and that in so leaving it she had been untrue to her professed method, and had arrived prematurely at her negative conclusions.

Observe that we did not affirm that these negative conclusions were scientifically erroneous. To have said that would have been to fall into the very error that we were trying to avoid. We only

said that they had been arrived at prematurely, without due consideration of the recorded testimony of many apparently "competent witnesses, past and present,"—to quote from our original statement of objects.

This testimony, then, we proposed to examine, to the best of our ability, according to the rules of scientific method. Here I must pause to say a word in explanation of the meaning we attached to this term "scientific," on which some emphasis was certainly laid in our programme, as it has exposed us to attacks from two opposite directions. On the one hand we were told somewhat roughly from the materialistic side that being just like all other fools who collected old women's stories and solemnly recorded the tricks of impostors, we only made ourselves more ridiculous by assuming the airs of a scientific society, and varnishing this wretched nonsense with semi-technical jargon. On the other hand, Spiritualists have more politely indicated a certain offence at what has seemed to them a pretension of intellectual superiority to the many educated persons—some of them of scientific repute—who had already been convinced by the evidence we were preparing to examine.

But, in truth, in using such words as "scientific" and "research," we had no idea of claiming special qualifications; our only wish was to characterise precisely the ideal of procedure that we set before us. Our point was not that we *were* scientific, but that we meant to be as scientific as we could. We meant to collect as systematically, carefully, and completely as possible evidence tending to throw light on the question of the action of mind either apart from the body or otherwise than through known bodily organs; we meant to collect and consider it without prejudice or prepossession, giving the fullest and most impartial attention to facts that appear to make against the hypothesis that the evidence at first sight suggested; and in particular we meant to examine with special care, in each department of the inquiry, the action of the causes known to science that presented themselves as possible alternatives to our hypothesis:—since only a rigorous exclusion of such known causes could justify us in regarding as scientifically established the novel agency of mind acting or perceiving apart from the body, or otherwise than through the known organs of sense or muscular motion. "Science," as an eminent man has said, "is only organised common-sense"; and it appeared to us that the rules of procedure that I have described were the obvious dictates of plain common-sense, assuming our object to be simply that of arriving at the truth.

This, then, was the general conception of our work. Let us now consider how far we carried out our ideal, and to what extent experience led us to modify our original view of the subject.

First, it will be seen by a reference to our original distribution of the subjects of inquiry, that the different parts of it, in our first view of them, grouped themselves in a manner quite different from the arrangement that further investigation led us to adopt. We had already recognised the importance of that "influence which may be exerted by one mind upon another, apart from any generally recognised mode of perception," which was afterwards called "telepathy"; and we had formed a separate committee to investigate hypnotism. But we had not yet recognised in the hypnotic trance a specially important source of telepathic phenomena—as we afterwards came to regard it; and we still kept to the popular view that classifies apparitions at the moment of death with ordinary ghost stories.

It was only by degrees—chiefly from the accumulating evidence of similar apparitions occurring in illnesses or other critical times of life, besides the great crisis of death—that we were led to view these death-wraiths as a special case of telepathic impressions:—and in so doing we were strongly influenced by the remarkable evidence which we obtained of such apparitions being produced by design and experimentally. I cannot but think that the force of this experimental evidence for telepathic hallucinations—which, though limited in amount, is good in quality—has been overlooked by some of our critics. Thus, then, was formed that notion of one complex group of telepathic phenomena which we called *Phantasms of the Living*. The advantage of this grouping was that evidence of various kinds,—partly experimental, partly spontaneous, partly obtained in a normal state of consciousness, and partly in the hypnotic trance—was made to converge on one general conclusion; the novelty of which, from a scientific point of view, appeared to be conveniently suggested by the novel word "telepathy." This conclusion involved the view that death-wraiths are hallucinations telepathically caused; and on this point we have been charged with violently forcing the facts collected into the mould of a preconceived theory. I venture, however, to think that this charge is unfounded, and that the amount of theory introduced by us is the *minimum* required to enable the facts which we regard as established to be conceived apart from assumptions which we regard as unwarrantable—at least at this stage of our investigation. We must regard a death-wraith as a hallucination, so long as we have no reason for supposing its appearance to be caused by the action on the retina of some kind of matter filling the space which the apparition seems to occupy; and this supposition would be clearly extravagant. On the other hand, if we regard the hallucination as causally connected with the death, we must attribute it to some occult action of the embodied mind, until we have obtained adequate evidence that disembodied minds are possible agents; and we do not yet think that we have

obtained such evidence. And this and no more is the amount of theory implied in our term telepathy.

The statement of the case for telepathy is, as you know, the chief positive result of our six years' work, so far as the central problems are concerned which it was the primary object of the Society to deal with. And I would now point out that throughout the investigation which led to this statement it was our endeavour to apply thoroughly our principle of carefully studying the possible known causes of the phenomena which we were inclined to attribute to an unknown cause; so that we might only accept as evidence experiences in which the operation of such known causes appeared either impossible or highly improbable. The application of this principle was, of course, different in different parts of the evidence. Putting deliberate fraud aside, what we had to guard against in the experimental thought-transference was unconscious signalling; and it soon became clear that, where contact of hands was allowed between percipient and agent, genuine thought-transference could be simulated to a striking extent by delicate muscular or tactile sensibility in the percipient, interpreting indications given unconsciously by the supposed agent. It is to this process that professional performers, like Mr. Stuart Cumberland, have for their own purposes given the name of "thought-reading"; and it appears from a popular novel of the present season that educated persons still exist who suppose this muscle-reading to be what we call telepathy:—whereas the special point of our investigation was the care with which this unconscious signalling was excluded.

In dealing with the spontaneous cases—especially the apparitions of distant persons corresponding to deaths or other crises—the problem of exclusion of known causes was fundamentally different. There could be no question as to whether the correspondence was due to such causes in any regular way: the only question—assuming the accuracy of the narratives—was whether it was due to accidental coincidence. We had, in fact, to deal with a problem in the theory of probabilities: and to solve this it was necessary to know approximately the frequency of hallucinations similar to those that are *primâ facie* telepathic, and not due to recognised disease.

This was a point which the scientific discussion of hallucinations had hitherto left quite obscure; we had to determine it entirely by our own statistical investigations, before proceeding to calculate our chances. Now I understand that to some persons interested in our general inquiry all this calculation of chances seems pedantic and superfluous: they think that once it is granted that we have well-attested first-hand cases in which A sees an apparition of B precisely when B dies—having never seen any other apparition—no man of common-sense can doubt that the correspondence cannot be due to

mere chance. And if visual hallucinations of sane persons not apparently ill had been as rare as I, at least, supposed when we began our investigation, I think this would be true. But, unfortunately for our argument, statistical inquiry showed them to be comparatively numerous—probably some thousands occur in England every year—far more numerous than the hallucinations which there is any ground for attributing to telepathy. This being so, it seemed to us that the question whether the latter could be chance coincidences went beyond the range of common-sense, and rendered careful calculation necessary—especially considering the inevitably unscientific character of most of the observations collected—I mean that they were not made at the time of the occurrence with careful attention by persons aware of the fundamental importance of exact and full statements.

And this view was confirmed by the reception of *Phantasms of the Living*. For though we have secured respectful attention to our case, and I believe persuaded several thoughtful persons to accept telepathy as a working hypothesis, there are others, who at least desire to be impartial, who consider that our evidence is inadequate to sustain the conclusion. I do not myself agree with these critics. I adhere to the general conclusion of the authors of *Phantasms*; but I admit that, in the present state of the evidence, the question is one that requires a careful estimate of considerations difficult to determine with any exactness.

And this leads me to what I spoke of at the outset as a crisis in the history of the Society. I always hoped, as one of the most valuable results of the publication of *Phantasms of the Living*, that—by gaining for our subject the serious attention of a much larger number of persons—we might secure that a good proportion of the fresh cases of spontaneous telepathy would be carefully noted with full detail at the time, and brought to the notice of our Committee; so that in the course of a few years more we might get together a body of fresh first-hand evidence in every way superior in quality to most of what we have yet published. And I am somewhat disappointed that this expectation has not yet been realised. I am inclined to think that this may be partly because our own members, and the friends of our movement, are under the impression that the business of collection in this department was considered to be completed when *Phantasms of the Living* was published; and that if the sceptics are still unconvinced after the heap of cases that we have laid before them, there is no use offering them any more—for in fact they will simply not look at it. And I should quite agree with this, so far as evidence of an inferior quality is concerned; I think myself that there is little use in adding to our stock of second-hand or remote cases. But my point is that if our hypothesis is true, we ought to be able to get evidence first-rate in quality of the telepathic

cases that are continually occurring ; and that if we do not get it, then, as time goes on, the absence of such evidence will constitute an argument of continually increasing strength against our conclusions ; it will be said that if the fresh cases had really occurred—as according to our hypothesis they must be supposed to occur—we should certainly have been able to ascertain their occurrence. I therefore venture to urge, with all the emphasis at my command, that a combined effort should be made by all who are interested in our inquiry to stimulate the observation and recording of these fresh experiences ; I cannot doubt that they are to be found, and I hope that whenever they are found they will be sent to me as Editor of the *Journal*—or to Mr. Myers or Mr. Podmore as Secretaries of the Literary Committee. I give again the assurance which we have always given, that, so far as may be desired by those who communicate with us, the names of persons and places and any other details that may be wished, will be kept strictly private.

And I may say that the view I am urging—of the need of renewed and sustained energy in the collection of fresh telepathic cases—was fully shared by the colleague whom we have lost : to whose rare intellectual gifts and unflagging zeal the respectful attention that we have gained for our positive conclusions is, as we all feel, mainly due. It was Mr. Gurney's intention, in the course of the autumn, to prepare an abridged popular edition of the argument and evidence set forth in *Phantasms of the Living*, in the hope of thus widening the area of serious interest in our inquiry, and proportionately increasing our prospect of obtaining careful records of new experiences. And I hope that this, as well as other parts of his scheme of future work, will still be carried out—though they must now be carried out by other hands.

One word in conclusion as to the remainder of my survey which I am obliged to reserve for a subsequent meeting ; I had hoped to say something of our—especially Mr. Gurney's—researches in the region of what I may call orthodox hypnotism : I mean such phenomena of the hypnotic trance as are admitted even by unpsychical physiologists ; and I had designed also to explain and justify our method of dealing with other departments of our inquiry, in which we have not arrived at a final conclusion on the main issues, though I venture to think that we have produced results of real value, and indispensable as a basis for further investigation. But all this must be for another time. I will only say now that our interest in these other departments of inquiry is unabated ; and if I have put prominently before you, as a subject for combined and concentrated effort, the completion of the telepathic investigation, it is largely because I feel sure that it is in this department, if any, that we shall first win the acceptance of the scientific world generally. And I desire to obtain their adhesion, not from any concern

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for fame, or because I care for the opinion of men, however eminent, who have never given serious attention to our subject, but because we are in pressing need of additional workers possessing scientific ardour and trained scientific faculty. If we could once get the conclusions of *Phantasms of the Living* accepted—I do not say universally, but by the younger and more open-minded part of the scientific world, we might fairly expect a rush of ardent investigators into the whole subject which will leave no department unexplored. And, believing what I do, I cannot see why this should not be achieved. It may be too sanguine to say that it will be achieved; there may be unknown invincible obstacles; but we may at least hope for this consummation and work for it.

VIII.

By PROFESSOR HENRY SIDGWICK.

January 25th, 1889.

IN an address which I delivered six months ago I endeavoured to give a brief survey of the work done by the Society during the six years of its existence. But time did not allow me to deal adequately with the whole subject, and one branch of our inquiry in particular, which occupied an important place in the original view of the objects for which the Society was formed, I reserved for separate treatment. I mean the investigation of the physical phenomena attributed by Spiritualists to the agency of intelligences other than human. In reserving this for separate treatment, I was influenced by the fact that our action in this department has been subjected to a good deal of criticism, public and private, in which, as I understand, some members of our Society have taken part.

In noticing this criticism, my chief object is to explain the course that we have adopted, not to refute any opponents. I have always held that in so novel and difficult an investigation as that in which we are engaged, our object should be to obtain as much criticism as possible, and to extract from it thankfully all the instruction that we can, even though a good deal of it may seem to us to go wide of the mark.

The only criticism against which I am disposed to protest, is the judgment that, as we have now had this question before us for nearly seven years, we ought to have come to a conclusion about it one way or the other. I think that such a proposition is hasty and unreasonable, whether the critic really means that we ought to have come to a positive conclusion, or that we ought to have come to a negative one. Taken in the former sense, I must be allowed to say that such a demand implies a remarkable ignorance of the ordinary rate and manner of progress of scientific knowledge in any department. Considering the enormous importance of the conclusion that a definite and measurable

part of the changes that take place in the world of our sensible experience is referable to the action of unembodied intelligences,—considering the revolution that the scientific establishment of this conclusion would make in the view of the universe which the progress of modern science has hitherto tended to make prevalent—it is not too much to say that if the undivided labour of the best scientific intellects in the world were employed for a generation in the investigation that established this as a scientific truth, their labours might be regarded as unusually fruitful. If, on the other hand, the critics' real meaning is that we ought before this to have arrived at a negative conclusion, I should reply that we *may* have been rash in commencing our enterprise, and endeavouring to bring under orderly scientific cultivation this wild region, in which vulgar credulity and superstition are so rampant; but that, having once undertaken the task, it would show deplorable levity in us to abandon it, until the strong reasons that induced us to undertake it—reasons set forth in our original statement of objects—have been shown by further experience to be invalid. And this, in my opinion at least, is by no means the case. My view of the evidence for the physical phenomena of Spiritualism has, indeed, been importantly modified during the last six years; but the weightiest part of the reasons that induced me to undertake the investigation of them still remain weighty.

In short, holding as I do that we had good ground for declaring the question of the genuineness of so-called Spiritualistic phenomena an open one, and worthy of serious and systematic investigation, I think we should be very slow to close the question, until we have obtained decisive arguments, either for a positive, or for a negative conclusion.

At any rate I think we can fairly claim that our prolonged suspense of judgment on this question is not due to any inert shrinking from the labour of investigation, or any timid avoidance of the responsibility of the decision and of the attacks to which it might subject us. I remember that in one of the satirical references to our proceedings that occur from time to time in the novels of the day, the President of the Society for Psychical Research was introduced as saying only two words, "I doubt." The satire seems plausible enough, when attention is directed only to our dealings with Spiritualism: but it should be borne in mind that the time of our investigators has been largely occupied with other inquiries which have not ended in doubt. During the six years of our existence, while one committee has pronounced decisively in favour of telepathy, on the basis of evidence requiring 1,200 octavo pages to set it forth, another committee has pronounced no less decisively against the claim of marvellous powers for Madame Blavatsky, which the Theosophists urged on our attention. Against the charge of feebleness and indecision, therefore, we have both a positive and a negative instance to bring forward. And I venture to think that

whoever will examine the work of our investigators in either case—whether or not he may agree with the conclusions arrived at—will admit that they entered on the inquiries with the utmost attainable openness of mind, spared no pains in studying closely and carefully the evidence offered, and having arrived at a conclusion, positive in one case, negative in the other, declared such conclusions without hesitation or reserve.

This comparison reminds me of another misunderstanding which I should like to remove. It is sometimes thought that those of us who declared in favour of telepathy thereby became hostile to the Spiritualistic hypothesis; that having once identified ourselves with telepathy, we have a morbid attachment to the idea, and are disposed to force it on phenomena that more naturally suggest a Spiritualistic explanation. In truth, there is not one of us who would not feel ten times more interest in proving the action of intelligences other than those of living men, than in proving communication of human minds in an abnormal way, if only we had as decisive grounds for the former conclusion as we believe ourselves to have for the latter. But before we introduce, in explanation of any phenomena, a cause unknown to science, we hold ourselves bound to try all that can be done in the way of explaining the phenomena by known causes; and as we regard telepathy as established, we are bound to treat it for this purpose like any other known cause.

It is not, however, with telepathy that we are chiefly concerned, in considering how far the physical phenomena of Spiritualism are explicable by known causes; but with an agency of a more familiar kind: the deception conscious or unconscious of human beings. In the original statement of the objects of this Society the widespread operation of this cause was expressly recognised; and it is to the peculiarly elusive quality of this agency, and the indefinite variety of the forms it is capable of assuming, that the special difficulty of the investigation and the characteristics of the scientific method appropriate to it are mainly due. In view of this, I recommended in my first address to the Society, as the result not of *a priori* reasoning but of long experience, that we should as much as possible keep aloof from paid mediums. This rule has been, in the main, adhered to by our investigators. An exception was made, under strong pressure, in the case of Eglinton; but the experience obtained in this exceptional case was not such as to encourage any further deviation from the rule.

But even when we confine our attention to phenomena where no pecuniary motives to fraud can come in, the necessity of a methodical and rigorous exclusion of fraud is not lessened. For even where personal knowledge renders it impossible for us to attribute conscious fraud to a supposed medium, it cannot exclude the possibility of unconscious deception. I have evidence of such deception having

actually occurred in cases in which the moral character of the medium rendered it in the highest degree improbable that it was conscious, and we have evidence of a different kind to show that supposed mediums are often in an abnormal physiological condition, which may not improbably be accompanied—we have positive reason for thinking that it is sometimes accompanied—with a tendency to unconscious deception. Apart from this, the value of an *investigator's testimony* to the genuineness of such marvels stands or falls with the completeness of his exclusion of possible deception. If he has not accomplished this the investigator has done nothing, however high the medium's character may be, however morally improbable that he should deceive; if the experimenter cannot show us that the conditions of his experiment exclude deception, deception may be still an improbable explanation, but he has added nothing to its improbability; he has simply left it where it was, depending entirely on the character of the medium; his experimental apparatus is, therefore, without result, and might as well have been dispensed with.

I lay stress on this, because the main difficulty of our investigators has been to find private mediums, manifesting phenomena *prima facie* inexplicable, who are willing to submit to the rigorous conditions and repeated experiments which are absolutely required, if the experiments are to be worth anything at all. This unwillingness is very natural, and we entirely understand it. The conditions inevitably suggest suspicion; the repetition of the experiments suggests that the suspicion is of an obstinate kind: the private medium, being of unblemished character and honourable life, accustomed to receive full and ungrudging confidence from all persons with whom he or she associates, naturally dislikes and resents being treated as a suspicious character. The difficulty thus caused is great, but we still hope that it may not be found insuperable. I fully admit—indeed I would earnestly contend—that it is the investigator's duty to use his utmost efforts to minimise the difficulty by courtesy and tact, and by avoiding anything in language or manner that can aggravate the suggestion of suspiciousness which his method of investigation inevitably involves.

But something may be done to remove the difficulty on the other side, if it can only be generally understood that whatever seems offensive in the conditions imposed by our investigators is due not to any quality of their individual disposition, moral or intellectual, but to the method which they think the scientific aim of the inquiry renders necessary. And the main desire that has prompted these remarks has been by making this point clear, to diminish, if possible, the obstacles to this part of our investigation; in which I personally take a strong interest.

IX.

By PROFESSOR HENRY SIDGWICK.

May 10th, 1889.

THE CANONS OF EVIDENCE IN PSYCHICAL RESEARCH.

I MAY begin by apologising for the pretentiousness of my announcement, which will, I fear, lead those who read it to expect a more precise and detailed statement of the rules to be followed in such an investigation as ours than I am at all prepared to offer.

As will appear, my view is that the investigation is inevitably of too obscure and tentative a kind to render it possible to treat it by any very exact method ; but there are certain general, though vague, principles which seem to me reasonable in dealing with the kind of evidence that comes before us, and which the very obscurity and tentativeness of the inquiry renders it desirable to put forward for discussion.

I mean by "the kind of evidence" evidence for marvels ; evidence tending to prove the intrusion—if I may so call it—into the world of ordinary experience, material or mental, either of causes that find no place at all in science—*i.e.*, in our systematised knowledge of the world of experience—or of unknown modes of operation of known causes.

That there is an immense divergence of opinions among thoughtful persons as to the manner in which this evidence should be dealt with is shown in other ways than in the criticism passed on our work ; it is shown, *e.g.*, in the controversies that from time to time go on between the representatives of orthodox theology and the lights of modern science. But the question of the evidential value of narratives of miracles, as credentials of a prophet or teacher sent from God, is complicated with profound philosophical and ethical considerations which do not enter into the question with which we are concerned. Most thoughtful writers on Christian evidences in the present age would, I think, agree that the evidence which the marvellous narratives of the Gospels afford of the Divine origin of Christianity must be taken in connection with the direct appeal that Christianity makes to the moral and religious consciousness of the individual ; thus, *e.g.*, if we had similar evidence tending to show the Divine origin of such a religion as Mormonism, we should certainly refuse to regard it as conclusive.

In this religious controversy, therefore, we do not have the question of the right scientific attitude to take up towards evidence for marvels as such, presented in a simple form. To find it so presented, we must turn to our own inquiry. Any member of our Society who has followed the controversy to which our publications have given rise must have felt that, as regards what is to most the most interesting subject of our investigation—the possible action of intelligences other than those of living human beings in the world of our experience—we occupy a very peculiar position. It is not only that we are attacked with equal vigour by Materialists and Spiritualists: but that each of the opposing parties attributes to us an extreme and irrational bias in favour of the other extreme. Our materialistic opponents seem to hold that there is practically no difference worth considering, in respect of credulity and superstition, between admitting the evidence of Spiritualists to be deserving of serious and systematic consideration, and accepting their conclusions; while the Spiritualists seem to think that the manner in which we treat their evidence shows that we are as obstinately prejudiced against their conclusions as the most bigoted Materialists can be.

I do not infer from this that the position which we thus occupy between the extremes is necessarily a right position: for, granting that truth generally lies somewhere between extreme views, it is obvious that the wider the interval between the extremes, the greater the chance that any particular position taken up in this interval may itself be remote from the truth. My object is rather to show how vast the intellectual interval is between the opposing extremes, when our intermediate position is thus viewed on either side as almost indistinguishable from the opposite extreme.

What, then, is the cause of this immense divergence as to the right manner of dealing with the evidence? Is it possible by any reasoning to diminish it, and to bring the divergent extremes to something more like a mutual understanding? These questions naturally force themselves on us: and from our intermediate position, subjected as it is to vehement attacks from both sides, we are, I think, very favourably situated for considering the question.

It is this question that I wish briefly to deal with this evening. I wish to show that in such inquiries as ours it is inevitable that there should be a very wide margin within which neither side can prove, or ought to try to prove, that the other is wrong: because the important considerations, the *pros* and *cons* that have to be weighed against each other, are not capable of being estimated with any exactness. And therefore there is properly a very wide interval between the point—as regards weight of evidence—at which it is reasonable to embark upon an inquiry of this kind and the point at which it is reasonable

to come to a positive decision. Moreover, it would save useless controversy to keep in mind, that the considerations in favour of accepting the evidence for the marvels as real is necessarily and reasonably taken at a different value by different persons, according to the different relations in which they stand to it.

Let me first state briefly why the decisive considerations cannot be estimated with any exactness. In considering whether the evidence for a marvellous fact is to be taken as true and adequate we have necessarily to compare opposing improbabilities: it is improbable that the marvel should have really happened, and it is improbable that the testimony to its happening should be false—otherwise the testimony would not be what we call evidence at all.

Now these opposing improbabilities are quite diverse, and we have no intellectual scales in which we can weigh them accurately one against the other. Some of our opponents offer us, by way of such scales, Hume's summary argument against miracles: "It is contrary to experience that miracles should be true, and not contrary to experience that testimony should be false." But in saying that a marvel is contrary to experience we can mean no more than that it is unlike previous experience—or rather that it is unlike that portion of experience which has been collected, handed down, and systematised by competent persons. But this only means that it is entirely novel and strange: and in the course of the life of the human race, during the period in which it has handed down and communicated experiences, different portions of mankind have been continually coming across things that were at first entirely novel and strange, though further acquaintance has rendered them familiar.

Let us take the strangest of the marvels that we are investigating, the physical phenomena of Spiritualism: and let us grant—for the sake of argument—that they are as strange to human experience as they certainly are to modern science. No one will maintain that it is impossible that the human race should ever come across anything so entirely novel in the course of its accumulation of experiences; they can only say that it is highly improbable. What is impossible is to estimate this improbability with anything like exactness: since to make such an estimate we should require to ascertain the proportion that what we do know about the universe bears to what we do not know about it; and that proportion is certainly one of the things that we do not know.

We are, therefore, in this position—not very satisfactory to the logical mind, but one that we are bound to face: we must admit that the statement of a fact novel beyond a certain degree of novelty is in itself an improbable statement, and that the improbability grows as the novelty grows: but we must admit that no one can pretend to lay down

at what rate the improbability grows. The improbability of course vanishes when we come to understand the conditions of the marvel, since this process of "understanding"—as we call it—brings it into harmony with the rest of our experience: but till we have reached this understanding the improbability must remain solid but indefinite, and all we can do is to weigh this improbability—not in any scales furnished by exact science, but in the rough scales of common-sense—against the improbability that the testimony should be false. The greater the marvel, the better must be the testimony; of that common-sense has no doubt; but it is impossible to say precisely what accumulation of testimony is required to balance a given magnitude of marvel.

Some of the advocates of Modern Spiritualism are inclined to join issue with common-sense on this point. They say, If you admit that the marvel in question is not strictly impossible, and the testimony would be amply sufficient, in quantity and quality, to establish any ordinary fact, would be accepted without hesitation in law courts, and in the ordinary affairs of life, you ought not to treat it with exceptional suspicion because the fact is novel and extraordinary. Now, doubtless, as Dr. Butler says, "Probability is the guide of life," and, therefore, when it is highly improbable that testimony should be false, we treat this improbability as if it were equivalent practically to negative certainty in ordinary affairs. But this only happens when there is no opposing improbability of equal weight: when in law courts, or in ordinary life we are met with conflicting improbabilities—as (*e.g.*) when two generally trustworthy persons contradict each other—then the degree of improbability of either being wrong has to be roughly estimated and is estimated for practical purposes. And, similarly, when the improbability of a marvel is met by the improbability of testimony being false, we have to make some kind of estimate of the latter, and in so doing to take note carefully of different sources of possible error. I need not dwell on these sources of error, as our *Proceedings* have by this time made us all very familiar with the different species. The chief are (1) alteration of a narrative or tradition, when it is not obtained at first hand; (2) errors in memory, when the narrative is told after lapse of time; (3) errors in the actual apprehension of fact, partly through failure to observe material circumstances, partly through the mingling of inference with observation. But as regards this last source of error, it may be worth while to observe that an important part of our work—in collecting evidence for telepathy—was free from it, and was thereby in a decidedly advantageous position as compared (*e.g.*) with the inquiry into the physical phenomena of Spiritualism. For in the proof that "Phantasms of the Living" are sometimes "veridical"—*i.e.*, correspond to deaths or other critical events in the life of the persons they represent—we are only concerned with observation of a

mental fact, as to which the observer cannot be mistaken : in his statement that a distant friend appeared to be in his room, there can be no erroneous inference ; error only comes in if he infers that the friend was physically there. The fact of the *apparition* is undeniable, and that fact is all we require for our argument. But in dealing with the evidence for physical phenomena this source of error has to be guarded against. If a man tells us that he saw a table get off the ground with no one touching it, though the fact that he had this impression is interesting and noteworthy, it is not complete proof of the levitation of the table ; we have still to inquire whether the impression on his mind could be produced otherwise than by the physical fact. If there was anyone else there, it is *prima facie* possible that he may have produced an illusion in the narrator's mind ; therefore it becomes needful (1) to study the art of producing illusions, and (2) to examine how far the situation and circumstances of the narrator at the time at which the impression was produced, gave opportunities for the exercise of this art. We have also, of course, to consider the possibility of the observer having been in an abnormal state of nerves or mind, tending to make self-deception natural—and even perhaps deception of others.

My object now is not to emphasise these sources of error ; but rather to show how in every case the probabilities are only capable of being vaguely estimated ; and how in many cases they must necessarily be estimated differently by different persons, according to their knowledge of the persons concerned. It is for this reason that I feel that a part of my grounds for believing in telepathy, depending, as it does, on personal knowledge, cannot be communicated except in a weakened form to the ordinary reader of the printed statements which represent the evidence that has convinced me. Indeed, I feel this so strongly that I have always made it my highest ambition as a psychical researcher to produce evidence which will drive my opponents to doubt my honesty or veracity ; I think that there are a very small minority of persons who will *not* doubt them, and that if I can convince them I have done all that I can do : as regards the majority even of my own acquaintances I should claim no more than an admission that they were considerably surprised to find me in the trick.

Perhaps my hearers may be inclined to ask me whether, having reduced the arguments on both sides to this degree of indefiniteness, I wish to leave the matter in this hazy condition. No ; that is just what I do not wish to do. But I think it will be a long process getting it out of this condition, and one that demands patience. What anyone has to do who is convinced himself of the reality of any alleged marvel, is *first* to try, if he can, to diminish the improbability of the marvel by offering an explanation which harmonises it with other parts of our experience ; and secondly, to increase the improbability on the side

of the testimony, by accumulating experiences and varying conditions and witnesses.

And may I conclude by saying again what I said last time, that considering the difficulties in which our investigation is involved, I think it unreasonable to complain of our slow rate of progress. I feel confident that if at the end of the next seven years we and our cause have made as much way as has been made in the seven that have elapsed, the whole attitude of at least the progressive part of the scientific world, in relation to the subjects that we are studying, will be fundamentally changed.

X.

BY PROFESSOR HENRY SIDGWICK.

July 8th, 1889.

THE CENSUS OF HALLUCINATIONS.

It is known to all members and associates of the Society for Psychical Research—at least to all who read this journal—that an attempt is being made on a large scale to obtain as accurate statistics as possible relative to the frequency, the specific nature, and—so far as may be—the causes of what I will briefly call Hallucinations.

The scale on which we are planning our census of Hallucinations is an ambitious one: it must be an ambitious one if we are to succeed in our aim; I do not think we can be satisfied with less than 50,000 answers to the first and most general question that we are asking; and if we are to get 50,000 answers, we want a great deal more assistance than we have as yet got.

I wish to express my gratitude, and the gratitude of those who are working with me, to the members and others who are aiding us in this toilsome task; at the same time, I wish to urge on all members and associates who have not yet offered aid that this is eminently a task for co-operative labour, in which everyone interested in Psychical Research ought to take a share. A copy of the single question that we wish to be asked in all cases has been sent to every member and associate, with spaces for 25 answers; we shall be happy to send any more copies to anyone who will apply for them; and if every member and associate would only collect a single batch of twenty-five answers, and persuade some one friend to collect another batch, we should get in this way over 30,000 answers and should have no doubt of being able to make up our 50,000.

I fear, however, that it is too much to expect this universal co-operation. I hope, therefore, that every zealous person will collect, either personally or by friends, as many batches as possible. And I

may add that we shall equally welcome assistance from persons who are not members or associates. I ought to add that we have carefully framed our question so that we may fairly ask for co-operation from persons of all opinions; it does not imply either belief or disbelief in the reality of ghosts, or in telepathy, or in any other explanation of the phenomena inquired into. It runs as follows: "Have you ever, when believing yourself to be completely awake, had a vivid impression of seeing or being touched by a living being or inanimate object, or of hearing a voice, which impression, so far as you could discover, was not due to an external physical cause?" I hope it will be seen how impartially the question has been framed. The most bigoted Materialist does not deny that certain persons have the impressions here described; the most convinced Spiritualist does not usually attribute them to an "external physical cause."

This leads me to say a word on the general term used to denote these experiences. We require some one general term, and the best that we can find to include all the species is "Hallucination." I admit the word to be open to some objection; because some people naturally understand from it that the impression so described is entirely false and morbid. But I need not say to readers of "*Phantasms*" that this is not our view: many of these experiences—though doubtless they all involve some disturbance of the normal action of the nervous system—have no traceable connection with disease of any kind: and a certain number of them are, as we hold, reasonably regarded as "veridical" or truth-telling; they imply in the percipient a capacity above the normal of receiving knowledge, under certain rare conditions.

Why, then, it may be asked, do we use a term that implies erroneous and illusory belief? I answer, first, because in every experience that we call a Hallucination there is an element of erroneous belief, though it may be only momentary, and though it may be the means of communicating a truth that could not otherwise have been known. If I seem to see the form of a friend pass through my room, I must have momentarily the false belief that his physical organism is occupying a portion of the space of my room, though a moment's reflection may convince me that this is not so, and though I may immediately draw the inference that he is passing through a crisis of life some miles off, and this inference may turn out to be true. In the case of a recurrent Hallucination known to be such, we cannot say that the false belief ever completely dominates the percipient's mind; but still, I conceive, it is partially there; here is an appearance that has to be resisted by memory and judgment.

It is, then, this element of error—perhaps only momentary and partial—which is implied in our term "Hallucination," and so much

will be admitted by most intelligent believers in ghosts: for there are few of such believers who really hold that a ghost is actually seen as an ordinary material object is seen: *i.e.*, that it affects the percipient's eyes from the outside by reflecting rays of light on them. But we wish even those ghost-seers who hold this belief to have no difficulty in answering "Yes" to our general question: and therefore in framing it we avoided the word "Hallucination," though we have thought ourselves justified in using it in the "Instructions to Collectors" at the back of the paper.

And all would certainly admit that in many cases "Hallucination" is the only proper term. For instance, one of our informants saw a hand and arm apparently suspended from the ceiling—the owner of the real counterpart of this hand and arm being alive and heard at the time moving about in the next room.

The word "apparition" is, no doubt, a neutral word that might be used of all visual experiences of this kind; but it could only be used of visual cases. Usage would not allow us to apply it to apparent sounds or apparent touches.

I think, then, that we must use "hallucinations of the senses" as a general term for the experiences we are collecting: meaning simply to denote by it a sensory effect which we cannot attribute to any external physical cause of the kind that would ordinarily produce this effect. In some cases we can refer it clearly to a physical cause within the organism—some temporary or permanent physical condition. In other cases—quite apart from telepathy—it is equally clear that the cause is primarily psychical. For instance, in the case of persons who have been hypnotised, it may result from a post-hypnotic order. Thus in an article by Mr. Gurney, in *Proceedings*, Part XII., pp. 12, 13, there is an interesting account of the result of a suggestion made by him to a subject named Zillah in the hypnotic trance, that she would have a hallucination of him at a certain fixed time on the following day; and there is a letter from Zillah's mistress describing the surprise caused to Zillah by seeing Mr. Gurney come into the kitchen and say "Good-afternoon," at the appointed time. Here we can trace the origin of the idea which thus externalised itself. In other cases, as with the arm above mentioned, the idea arises spontaneously by association or otherwise in the mind. In other cases, again, the idea which thus externalises itself may, as we believe, come into the mind from the mind of a person at a distance—the idea of a dying friend reaching us from his mind and rising above the threshold of consciousness in the form of a hallucination, just as the idea of Mr. Gurney rose above the threshold of consciousness in Zillah's case in the form of a hallucination. A link between the two is afforded by those rare and interesting cases, of which several have been recorded in the publications of our

Society, where one person is able from a distance and by a mental process alone to cause an apparition of himself to another. We have reason to think that the resulting sensory effect is in all these cases essentially the same, though the cause of it is very different in different cases ; and, therefore, in the present state of our knowledge, it seems best to apply the term "hallucination" to all.

I have dwelt thus long upon the use of the word hallucination—because the discussion brings out incidentally the importance of making the statistical inquiry we are engaged in as to the kind of hallucinations that occur, and the proportion of people that experience them. It is clear from what we have said that the subject of hallucinations is of importance to psychologists and physiologists, for whom they throw light on the workings of the mind and senses. And it is also of some practical use to inquire into them with a view to dispelling the alarm they frequently cause. But it is for those interested in Psychical Research that they are at present most important—and that whether they are supporters or opponents. For those who believe in telepathy it is of course very important to study as completely as possible the mode in which, as it appears, telepathically imparted ideas are apt to manifest themselves. But, apart from this, it is absolutely necessary, in order to prove that the hallucinations of dying persons are really connected with their death, to form some idea of the relative frequency of such hallucinations compared with those which do not correspond with any external event. Apparitions of living persons when nothing seemingly is happening to them are common—much commoner than veridical ones. Mr. Gurney calculated that, if a man saw an apparition of his friend, he would be justified in assuming the chance that his friend had died within an hour of that time as about 1 in 40. If this conclusion be correctly drawn from adequate data, we need not feel extremely alarmed about our friend if we see his apparition ; though, at the same time, the frequency of the coincidence is very far beyond what chance would give. But it has been doubted whether the number of answers which Mr. Gurney collected—5,700—is sufficient to give accurately the proportion of the population who have seen apparitions ; and Mr. Gurney himself considered it quite insufficient to determine the proportion of coincidental to non-coincidental cases. To arrive at this he endeavoured to form an estimate of the size of the circle from which our veridical cases are drawn. This is necessarily extremely uncertain, and though I think the estimate given in *Phantasms* is probably in excess of the truth and therefore allows a margin against the telepathic hypothesis, this view has not been taken by critics of that work, some of whom think that the circle has not been assumed large enough. At any rate we should all agree with the critics in thinking that it would be much better if we could

dispense with conjecture altogether and know the experiences of a sufficient number of persons to enable us to tell from the statistics alone what proportion of the population have hallucinations and what proportion of these are coincidental. If we can collect 50,000 answers I think we could do this, but the coincidental cases are too rare for us to rely on a smaller number.

I have tried to show that all the phenomena to which our question relates—veridical or not—should be called hallucinations. I must, however, admit that it is not very easy to draw the line unmistakably between what is a hallucination and what is not. The difficulty meets us in all directions. For instance, are sounds heard in a so-called haunted house hallucinations or are they real sounds? This question would be answered differently by different persons, and it was because we felt that hopeless ambiguity would be introduced into our results by including noises as distinct from voices that we limited our inquiry in auditory experiences to voices. But the difficulty of drawing the line is not thus entirely avoided. It is often difficult to decide on the degree of externalisation of an experience both in visual and auditory cases. For instance, it may be asked—how does a vivid visual impression seen with the eyes shut count, and how does this differ from an apparition seen in the dark? Or again, how far is the kind of experience which is sometimes described as an internal voice, or as a soundless sound, an auditory hallucination? I do not think that in fact there is any sharp line between such a mental image as most of us can call up and a genuine hallucination—experiences of all degrees of externalisation occur between the two. There are some which we have no hesitation in calling hallucinations and some which we can equally confidently say are not, but there are some which it is difficult to decide about. As regards these, I would say to those who answer our question—put down either *yes* or a query, and give details, leaving to the Committee who will have to analyse the results the burden of deciding how they should be classed.

One other point of doubt about our question may here be mentioned. We determined to secure as far as possible that our answers should be the *bonâ fide* answers of grown-up people by asking the question only of people who have attained the age of 21. But we did not mean by this, as has been understood in some cases, to exclude experiences which had occurred to those answering at any age.

Again some collectors have asked me whether uneducated people may be included in the census. There is no objection to this—indeed I think it desirable to include all classes—but collectors will find that a good deal of care and trouble must be taken to make sure that uneducated people quite understand the question.

I have kept to the last the most important of the special points to

which I wish to draw attention. It is not only necessary, as I have said, that our census shall be sufficiently extensive, but it is also of fundamental importance that it shall be impartial, that the collector should not yield to any bias in favour of collecting either positive or negative answers. It is, of course, natural that the collector should be more interested in obtaining experiences of the positive kind, and it is, of course, very probable that when it is known in his circle of friends and acquaintances that he is making this collection, that cases of such experiences should be mentioned to him. It is, however, obvious that if answers to which he is directed in this way were simply included in his list without any special mark, the impartiality of the result would be fundamentally vitiated. In order to guard against this danger, and at the same time not to lose any information which might have an important value for our inquiry, we advise all our collectors when they send in their lists, to put a cross against any answer the nature of which was known to them through information received before they asked the question.

XI.

BY PROFESSOR HENRY SIDGWICK.

July 11th, 1890.

SECOND ADDRESS ON THE CENSUS OF HALLUCINATIONS.

IT is now just about a year since I gave my last *ad interim* report on our Census of Hallucinations at a General Meeting of the Society. The progress made during this interval has not quite realised my expectations; in particular, I am a little disappointed by the limited amount of interest shown in the work by Members and Associates of the Society. We have now in our Society about 700 Members and Associates, (not counting the American ones,) and as I pointed out before, if all of them would collect 25 answers and induce one friend to do the same—a task which ought not, generally speaking, to be very difficult,—we should thus get 35,000 answers, and this number, though not so large as I should like, would probably enable us to calculate from the census itself, with sufficient approximation to accuracy, the proportion of coincidental to non-coincidental phantasms. The importance of this result, as relieving us from the necessity of forming a conjectural estimate of the size of the circle from which our “veridical” cases are drawn, was explained in my last address. At present, however, only about 74 Members or Associates have, so far as we know, given any help, and if it had not been for the great efforts made by some of these—which I most gratefully acknowledge—and for help received from outsiders, we should not have attained to our present modest number of answers—6,481.

Of the 6,481 people whose answers we have, 727, or about 11 per cent., answer in the affirmative, and 751 experiences are described.¹ These may be divided into 474 cases where the sense of sight was affected, 219 cases where voices were heard without any accompanying visual impression, and 56 cases where the impression was only on the sense of touch, besides 2 where the touch was accompanied by a non-vocal auditory impression. In about 48 out of the whole number, more than one sense was affected, besides 26 more in which, along with a visual or tactual impression, some non-vocal sounds occurred, which do not come within the scope of the present inquiry. It is often difficult in the case of sounds, and especially of non-vocal sounds, such as rustling, footsteps, &c., to ascertain whether they were hallucinatory or not.

Out of the 751 cases, 98, or about 13 per cent., may be called coincidental; that is, they are cases in which the hallucination has coincided in time with some condition of another person, who may be regarded as the agent, in such a way as to suggest a causal connection between that condition and the hallucination.

Some of these experiences that I have called coincidental must be admitted to fall under Mr. Gurney's head, "ambiguous." On the other hand, among cases classed as non-coincidental, there are a certain number which there is some reason to regard as other than purely subjective. Thus there are 6 cases of the figure and 1 of the voice of dead persons phantasmally seen or heard when the percipient was unaware of the death. There are 9 cases (7 of an unrecognised figure, 1 of a recognised living person, and 1 of a recognised dead person) where apparently the same figure is independently seen by more than one person on different occasions. In one of these a figure in a brown dress with broad lace collar and golden hair was seen by three persons on different occasions in a certain house, two of these experiences being certainly independent—that is, the second percipient knew nothing about the experience of the first. The figure was afterwards thought to be recognised as that of a living lady dressed similarly; but as only a part of the ghost's face was seen, the recognition can hardly be counted on.

Finally, there are 66 collective cases—cases, that is, in which more than one person shares the experience—besides 12 collective cases which have been already counted as coincidental. These are the numbers if we count the persons answering our question who have

¹Of the persons who have had experiences, 121 have given no particulars. On the other hand, 217 persons have had more than one experience. A large proportion of these, however, were recurrent experiences of a trivial kind, such as hearing the name called, or feeling touches. We have counted recurrent experiences not described singly as one.

seen "collective phantasms." But, as sometimes more than one of the joint percipients is included among these, the whole number of phantasms collectively seen and heard is rather smaller, viz. : 10 coincidental ones and 55 non-coincidental ones—65 in all, of which 47 were visual as regards at least one of the percipients. The number would be still further reduced by excluding from it those cases where there seems to be a possibility that the figure seen or the voice heard was not hallucinatory at all but real. Precisely how large this reduction should be we can only guess, but I will give one of our reasons for thinking that some reduction is necessary. We find that out of the visual collective cases, more than half occurred out of doors, while of the visual cases occurring to a single percipient, only about one seventh occurred out of doors. Now, though some supposed apparitions seen out of doors are quite as obviously true hallucinations as some of those seen indoors, still, speaking generally, there seem to be several reasons why real human beings are more likely to be mistaken for apparitions out of doors than indoors. In the first place, if a figure appears in a room its distance is seldom great enough to make recognition doubtful, so that cases of mistaken identity are less likely to occur indoors. Further, if the figure be unrecognised, this can seldom be regarded as evidence of its hallucinatory character out of doors, while it often would afford evidence indoors, since it is not usual for strangers to walk into our rooms without any one in the house knowing anything about it. And, again, the mode of appearance and disappearance of the figure is much more often clearly impossible for a real person indoors than it is out of doors. The figure may, for instance, go through a locked door, or through the wall, or into a room into which it is at once followed, and where it is not found. Out of doors it is often difficult to prove that the vanished figure has not simply turned into a house, or been hidden by an intervening bush or other obstacle, especially since its distance is often much greater than that of a hallucinatory figure seen in the house.

After making all allowances, however, there remains a certain number of collective cases in which the objects seen can hardly have been real people or things.

Now granting that collective hallucinations really occur—and, apart from this census, we have by this time accumulated a good deal of evidence of the fact—they are obviously of great theoretical importance in considering the nature and origin of hallucinations. I therefore propose to make a few remarks on them this evening. The most obvious explanation of the "collectiveness" of a hallucination is that it has for both percipients some common origin independent of either of them. This common origin might be telepathic, some other mind affecting them both similarly and simultaneously, or it might be what

I may call "physical suggestion," by which I mean some real external cause,—say a sound like a footstep—starting by "suggestion" a similar hallucination in both of them. Now though it seems not improbable that the hallucination is sometimes produced telepathically in both percipients at once by some other mind, living or dead, this can hardly be the explanation always. For instance, it is unlikely that a psychical cause external to both percipients made two girls at a dancing class simultaneously see a chair in the middle of the floor where no chair was, or produced for two other percipients an appearance of a grey object about the size of a man's head, which rose and fell again near them as they sat at luncheon. It is equally arbitrary to explain by external psychical agency cases where the phantasm collectively seen represents a living person who was in no unusual condition at the time. For instance, two young ladies and their brother going along the passage one day saw their father going upstairs. One of them also heard his footsteps while the other two were struck by the absence of sound. Though none of them saw him very distinctly, they all independently felt convinced at the moment that it was their father; but their father was at the time sitting quietly reading in the dining-room and it could not have been any other real human being.

As regards the second possible hypothesis, that what I have called physical suggestion is the common origin of the hallucination in the two percipients, it may reasonably be asked whether we have any evidence that a hallucination is ever thus produced. We know, of course, that verbal suggestion will often make hypnotised people see hallucinations, but it is a great step from this to assuming that hallucinations can be produced in this way in the case of people in a normal state, and it is a still further step to assume as possible the non-verbal and therefore less definite suggestion, which is all that we can suppose to occur in the present cases. Hallucinations, however, are so rare in the experience of most of us that it may fairly be argued that when we see them we are not quite in a normal state, and I think there is reason to believe that self-suggestion sometimes operates during a hallucination, for it is sometimes difficult otherwise to account for the occasional agreement of two senses. For instance, a lady in the dark first feels her husband's presence, then putting out her hand, feels his coat-sleeve, and then hears him speak. The husband, meanwhile, is absent and vividly imagining himself to be bringing her bad news. A reflected hallucination such as I mentioned in my last address is again an instance of the operation of self-suggestion during a hallucination, though only one sense is affected.

But in these cases it is hallucination that leads to further hallucination. It is a different question whether real sounds ever lead to visual and other hallucinations by suggestion. It appears to me prob-

able from the evidence that in some cases they do and that muscular sensations suggesting touches do so also, but it is difficult to prove this because it is difficult to prove that the sounds and touches are not themselves hallucinatory: I will, however, give one instance from the Census collection of a case *primâ facie* collective where the probability that a real sound wrongly interpreted led to different visual experiences appears to me very strong. Two sisters within hearing of the front door, and within sight of different parts of the passage leading from it to the living rooms, but not within sight of each other, heard their father's latch-key in the door and heard him come in. One of them (who is now dead) then saw her father, and the other saw his dog pass the door of the room where she was. It was their father's habit to take a walk with his dog and return about this hour, but on the particular afternoon in question he and the dog were dozing in the dining-room. The same explanation might be applied in any other case *primâ facie* collective, in which there was a common perception of sounds possibly real, but diverse visual hallucinations. But it does not seem applicable to cases where the things seen are decidedly more alike than one can easily suppose they would be from the slight amount of suggestion received.

This difficulty also occurs in connection with a third explanation of collective hallucinations, viz., that A sees a hallucination first and then conveys it by word or gesture to B. In certain cases this is plausible. Recognised figures might be suggested by a brief exclamation, and in some cases it is clear that one percipient was aware that the other saw something before he saw it himself. But it is difficult to see how an unfamiliar figure could be so suggested, and the detailed resemblances in our collective cases are sometimes of too marked a character for us easily to suppose that they were the result of comparing notes afterwards and pseudo-memory. Moreover, our informants have sometimes taken pains, according to their recollection, to avoid any conscious suggestion to one another.

There remains a fourth hypothesis, viz., that the hallucination of one percipient is caused by *mental* suggestion or thought-transference from the other. This hypothesis avoids the difficulty as to the similarity of the two hallucinations, since it seems quite as likely that the general idea as to form, colour, &c., of a hallucination seen by A should be conveyed telepathically to B, as that the general idea of the form and colour of what the agent was looking at in Mr. Guthrie's experiments should be conveyed to the percipients. Another difficulty attaching to the hypothesis of suggestion is avoided or reduced by supposing thought-transference to operate. It would be a remarkable coincidence that, at the moment when A is having an unusual experience, B should be in the unusual state in which he can be made

to see the same thing by ordinary suggestion. But if our view about veridical apparitions is correct it would seem that a "telepathic impact" is itself sometimes a cause of hallucination in the person to whom the idea is transferred. For instance, to take an experimental case—when Baron von Schrenk-Notzing tried, as an experiment, to make a lady think of him, she saw his face before her, without any intention on his part of producing a hallucination. It must be admitted that we have at present no crucial instance showing that the act of experiencing a hallucination is a condition specially likely to cause a telepathic communication with another mind. There are, however, one or two cases in which such a transfer seems to have occurred. I may remind you of one in *Phantasms of the Living* (Vol. II., p. 198), quoted from the note-book of Philip Lord Chesterfield. Waking one morning he saw a thing standing like a white sheet, with a knot at the top, and his wife, who was 40 miles away, saw on the same morning and at the same hour "a thing all in white with a black face" standing by her bed.

I may appropriately conclude my address with an account of an experiment made only yesterday by Mrs. Sidgwick, which points strongly in the same direction. With the assistance of Mr. G. A. Smith, Mrs. Sidgwick has been trying experiments in thought-transference with hypnotised persons. Two of these were yesterday hypnotised in different rooms. We will call them Mr. P. and Miss B. You are no doubt aware that good hypnotic subjects can be made to have post-hypnotic hallucinations—*e.g.*, if told while hypnotised that they will see some specified object when they awake, they do see it though there is nothing of the sort there. Mr. Smith told Mr. P. on this occasion that Mrs. Sidgwick would show him a picture, and then went out of the room and told Miss B. that she would see a picture which Mr. P. would show her when her eyes were open. While he was away Mrs. Sidgwick told Mr. P. that she was going to show him a picture of a goat-chaise with two goats. Then Mr. Smith came back, awoke Mr. P., and left again immediately. After which Mrs. Sidgwick gave Mr. P. a blank card as a picture and he almost immediately saw on it the picture of the goat-chaise and two goats and was much pleased with it. Mrs. Sidgwick asked him to take it upstairs and show it to Miss B., but to be careful not to tell her what it was—to let her see for herself. This he immediately did. Miss B. at first only saw something black on the card, then by degrees she saw, first some wheels, then "a nice little wee carriage," and presently some animals in front, which she identified as two goats. As this was—so far as Mrs. Sidgwick can judge—without any information from Mr. P. through the ordinary channels of sense as to the nature of what he saw, it seems to be a case of collective hallucination and one which was conveyed to Miss B. by thought-

transference from Mr. P. Had Mr. Smith known what Mr. P. saw on the card, we might suppose that he caused Miss B. to see the picture by thought-transference, but no one but Mr. P. and Mrs. Sidgwick knew what he saw, and she has no reason to think that she can convey ideas telepathically to Miss B. She fails when she tries, while Mr. P. has on other occasions succeeded.

XII.

By THE RIGHT HON. ARTHUR J. BALFOUR, F.R.S.

January 26th, 1894.

IN accordance with precedent, I have to begin my observations to you by calling to your recollection the melancholy fact that since last there was a meeting of this Society we have lost two of our most important and most valued members. Less than a fortnight ago, Dr. Arthur Myers, a member of the Council, and not only a member of the Council, but one who ever since the inception of this Society has done admirable, and, indeed, invaluable work in connection with its labours, passed away. The loss which his friends have sustained by his death it would not be proper for me on such an occasion to dwell upon,—however much, as one of the oldest of those friends, whose friendship dated from Cambridge days, now twenty years ago, I might be tempted to do so. But it is strictly within the scope of my duties to remind you of the admirable aid which he has given to our investigations, of the untiring zeal which he has thrown into all the matters that came before him, of his self-sacrificing energy, and the liberality with which he spent in our service both time and money.

We have lost another distinguished member of our body—not in this case one who was associated very closely with our work, but one, nevertheless, who by the lustre of his name added dignity to our proceedings and who might, had his life been spared, have largely helped us, I believe, in experimental investigations—I allude to Professor Hertz, a corresponding member of our body. As those of you will know who have had the opportunity of following recent developments of physical science, he was the fortunate individual who demonstrated experimentally the identity of light and of certain electro-magnetic phenomena. This identity had been divined, and elaborated on the side of theory, by one of the greatest of English, I ought perhaps to say of Scotch, men of science, Clerk Maxwell, but it had never been conclusively proved until Professor Hertz, about five years ago, startled Europe by the experimental identification

of these physical forces. The extraordinary interest and the far-reaching importance of a discovery like this will not perhaps be appreciated by every one of my audience, but all of those who take an interest in such subjects will see that by this stroke of experimental genius a very large stride has been made towards establishing the unity of the great physical powers of nature.

The mention of a great physical discovery like this, made by one of our own body, naturally suggests reflections as to our actual scientific position. What, we feel tempted to ask, is at the present time the relation of such results as we have arrived at to the general view which hitherto science has taken of that material universe in which we live? I must confess that, when I call to mind the history of these relations in the past, the record is not one on which we can dwell with any great satisfaction. Consider, for example, the attitude maintained by the great body of scientific opinion, whether medical or physical, towards the phenomena which used to be known as mesmeric, but which have now been re-baptised, with Braid's term, as hypnotic. As most of you are aware, it is very little more than a century since the public attention of Europe, and especially of certain parts of the continent, was called to these extraordinary phenomena by the discoveries—if I may call them discoveries, for, after all, they were known long before his time—of Mesmer. Mesmer produced hypnotic phenomena, which are now familiar to everybody, and, not content with that, he invented a theory to account for them. The theory is an extremely bad one, and, I imagine, has fallen into the disrepute which it deserves; for Mesmer committed the error, which has been repeated now and then since, of trying to find an explanation for strange and unaccountable facts by simply describing them as the effect of some equally strange and unaccountable cause. He declared that there was a kind of magnetic fluid to the operations of which the results that he obtained were due; and he undoubtedly did his reputation much disservice in the minds of the scientific experts of the time by associating his discoveries with speculations which, after all, did not at the time stand, and have not since stood, the test of critical investigation. Nevertheless, the facts that Mesmer brought forward could be proved in the last century, as they can be proved now, by experimental evidence of the most conclusive character. It can be shewn that they are neither the result of deliberate fraud nor unconscious deception, and, accordingly, there was here a problem presented for solution which it was plainly the duty of men of science in general, and, probably, of the medical profession in particular, to examine and probe to the bottom; to explain if they could, but not to explain away if they could not. Their actual course was a very different one. There were, indeed, a

good many doctors and other men of science who could not refuse the evidence of their senses, and who loudly testified to the truth, the interest, and the importance of the phenomena which they witnessed. But if you take the body of opinion of men of science generally, you will be driven to the conclusion that they either denied facts which they ought to have seen were true, or that they thrust them aside without condescending to consider them worthy of serious investigation. There were, I believe, no less than two or three Commissions of enquiry—three, I think—instituted in France alone, one in Mesmer's lifetime, and the other two, unless my memory deceives me, after his death. The amount of evidence collected, at all events by one of those Commissions, composed of some of the most eminent scientific men in France, should have been enough to call the attention of all Europe to the new problems thus raised. The report which embodied this evidence was, nevertheless, allowed to lie unnoticed upon the shelf; and it has only been by a gradual process of re-discovery, a constant and up-hill fight on the part of the less prejudiced members of the community, that the truths of hypnotism, as far as they are yet attained, have reached something like general recognition; even now, perhaps, their full importance—whether from a therapeutic or a psychological point of view—has not been sufficiently acknowledged.

What I have just very briefly and rudely sketched out to you is the history of an investigation into one small section of these alleged phenomena which fall outside the ordinary field of scientific investigation. If we took it by itself we should say that scientific men have shown in connection with it a bigoted intolerance, an indifference to strictly scientific evidence, which is, on the face of it, discreditable. I, however, do not feel inclined to pass any verdict of so harsh a character upon the action of the great body of scientific men. I believe that, although the course they pursued was not one which it is very easy rationally to justify, nevertheless there was a great deal more of practical wisdom in it than might appear at first sight. I have always been impressed by the lesson taught us by the general course of history, that you cannot expect, either of any single nation or of any single age, that it will do more than the special work which happens, so to speak, to be set before it at the moment. You cannot expect men, being what they are, to labour effectively in more than one relatively restricted field at the same time; and if they insist on diffusing their energies over too wide a surface, the necessary result, as I believe, will be that their labours will prove unfruitful. Now just consider what it is that men of science have done in the century which has elapsed since the first French Commission investigated Mesmer's discoveries. I do not believe it would be going too far to say that the

whole body of the sciences, with the exception of mechanics, especially mechanics as applied to celestial motions—that the whole body of the sciences outside that limited sphere has been reconstructed from top to bottom. Our leading ideas in chemistry, our leading ideas in physics, the theory of light, the theory of sound, the whole of geology, the great generalisation known as the conservation of energy, and all the speculations and extensions which have succeeded that great generalisation, the whole theory of natural selection and of biological evolution, are all the birth of the hundred years which have elapsed since first Mesmer made hypnotic phenomena notorious through Europe. I think if scientific men, looking back upon the past, choose to set up for themselves this defence, that after all only one thing can be done at a time, that they were occupied in co-ordinating within certain lines the experimental data then available, and that, in harmony with a given conception of the material world, they were laying deep the foundations of that vast and imposing fabric of modern science, I for one should accept the plea as a bar to further proceedings. For the men who did that work could not have done it, I believe, unless they had rigidly confined themselves to one particular conception of the world with which they had to deal. If they had insisted on including in their survey not merely the well-travelled regions of everyday experience, but the dark and doubtful territories within which our labours lie, their work would have been worse, not better; less, not more complete. They may have been narrow; but their narrowness has been our gain. They may have been prejudiced; but their prejudices have been fruitful, and we have reaped the harvest. I have often thought that when, on looking back over the history of human speculation, we find some individual who has anticipated the discoveries of a later age, but has neither himself been able to develop those discoveries nor yet to interest his contemporaries in them, we are very apt to bestow on him an undue meed of honour. “Here,” we say, “was a man before his time. Here was a man of whom his age was not worthy.” Yet such men do very little indeed for the progress of the world of which at first sight they would appear to be among the most distinguished citizens. There is no use in being before your age after such a fashion as this. If neither you nor those to whom you speak can make use of the message that you thus prematurely deliver, so far as the development of the world is concerned, you might as well have not lived at all. When, therefore, we are asked to put our hands in our pockets and subscribe towards the erection of memorials to half forgotten worthies like these, by all means let us do it. It is natural and even praiseworthy. But do not let us suppose that those whom we thus honour really stand out among the benefactors of our species. They are interesting; but hardly useful.

This, however, is merely a parenthetical reflection, to which I do not ask your agreement, and which, after all, has nothing to do with the general drift of the argument that I desire to lay before you. The question I now wish you to consider is: Granting to men of science that they had, if not a theoretical and speculative excuse, still a practical justification, for the course they have adopted in regard to these obscure psychical phenomena during the last hundred years, is that justification still valid? For myself, I think it is not. I think the time has now come when it is desirable in their own interests, and in our interests, that the leaders of scientific thought in this country and elsewhere should recognise that there are well-attested facts which, though they do not easily fit into the framework of the sciences, or of organised experience as they conceive it, yet require investigation and explanation, and which it is the bounden duty of science, if not itself to investigate, at all events to assist us in investigating.

I am, of course, aware that there are necessarily connected with our work difficulties and obstructions in the way of experiment with which scientific men are not familiar, and which not unnaturally rouse in their minds both dislike and suspicion. To begin with, there is the difficulty of fraud. The ordinary scientific man no doubt finds the path of experimental investigation strewn with difficulties, but at least he does not usually find among them the difficulty presented by human fraud. He knows that, if he is misled in any particular, it is the fault of the observer, and not the fault of the observed. He knows that, if his cross-examination of nature fails to elicit anything, it is because he has not known how to cross-examine, not because nature when put in the witness box tells untruths. But unfortunately in the matters with which we have to deal this is not the case. We have come across, and it is inevitable that we should come across, cases where either deliberate fraud or unconscious deception makes observation doubly and trebly difficult, and throws obstacles in the way of the investigator which his happier brother in the region of material and physical science has not to contend with.

And there is yet another difficulty in our work from which those who cultivate physical science are happily free. They have, as the ultimate sources of their knowledge, the "five senses" with which we are all endowed, and which are the only generally recognised inlets through which the truth of external nature can penetrate into consciousness. But we of this Society have perforce to deal with cases in which not merely the normal five or six senses, but some abnormal and half-completed sense, so to speak, comes into play; in which we have to work, not with the organisations of an ordinary and normal type, but with certain exceptional organisations who can neither explain, account for, nor control the abnormal powers they appear to possess.

This is not only a special difficulty with which we have to contend ; it is the basis of a serious objection, in the eyes of many scientific men, to the admission of the subject matter of our researches into the sphere of legitimate investigation. These critics seem to think that because we cannot repeat and verify our experiments as we will and when we will—because we cannot, as it were, put our phenomena in a retort and boil them over a spirit lamp and always get the same results—that therefore the phenomena themselves are not worth examining. But this is, I venture to say, a very unphilosophic view of the question. Is there, after all, any inherent *a priori* improbability in there being these half-formed and imperfectly developed senses, or inlets of external information, occasionally and sporadically developed in certain members of the human race? Surely not. I should myself be disposed to say that if the theory of development be really sound, phenomena like these, however strange, are exactly what we should have expected. For what says the theory of natural selection? Why this, among other things: that there has gradually been elaborated by the slaughter of the unfit and the survival of the fit, an organism possessed of senses adapted to further its success in the struggle for existence. To suppose that the senses elaborated in obedience to this law should be in correspondence with the whole of external nature, appears to me to be not only improbable, but, on any rational doctrine of probability, absolutely impossible. There must be countless forms of being, countless real existences which, had the line of an evolution gone in a different direction, or had the necessities of our primitive ancestors been of a different kind, would have made themselves known to us through senses the very character of which we are at present unable to imagine. And, if this be so, is it not in itself likely that here and there we should come across rudimentary beginnings of such senses ; beginnings never developed and probably never to be developed by the operation of selection ; mere by-products of the great evolutionary machine, never destined to be turned to any useful account? And it may be—I am only hazarding an unverifiable guess—it may be, I say, that in these cases of the individuals thus abnormally endowed, we really have come across faculties which, had it been worth Nature's while, had they been of any value or purpose in the struggle for existence, might have been normally developed, and thus become the common possession of the whole human race. Had this occurred, we should have been enabled to experiment upon phenomena, which we now regard as occult and mysterious, with the same confidence in the sources of our information that we now enjoy in any of our ordinary enquiries into the laws of the material world. Well, if there be, as I think, no great antecedent improbability against there being these occasional

and sporadic modifications of the organism, I do not think that men of science ought to show any distrustful impatience of the apparent irregularity of these abnormal phenomena which is no doubt one of their most provoking characteristics.

But there is another and a real difficulty, from the point of view of science, attaching to the result of our investigations, which is not disposed of by the theory which I have suggested of imperfectly developed senses. Such senses, if they exist at all, may evidently be of two kinds, or may give us two kinds of experience. They may give us a kind of experience which shall be in perfect harmony with our existing conception of the physical universe, or they may give us one which harmonises with that conception imperfectly or not at all. As an example of the first I might revert to the discovery, previously referred to, of Professor Hertz. He, as I have already told you, has experimentally proved that electro-magnetic phenomena are identical, as physical phenomena, with ordinary light. Light consists, as you all know, of undulations of what is known as the luminiferous ether; well, electro-magnetic waves are also undulations of the same ether, differing from the undulations which we call light only in their length. Now it is easy to conceive that we might have had a sense which would have enabled us to perceive the long undulations in the same way as we now perceive the short ones. That would be a new sense, but, though new, its deliverances would have fitted in with the existing notions which scientific men have framed of the universe. But unfortunately in our special investigations we seem to come across experiences which are not so amenable. We apparently get hints of the existence of facts, which, if they be well established, as they appear to be, cannot, so far as I can judge, by any amount of squeezing or manipulation be made to fit into the interstices of our accepted view of the physical world; and, if that be so, then we are engaged in a work of prodigious difficulty indeed, but of an importance of which the difficulty is only a measure and an indicator. For we should then be actually on the threshold, so to speak, of a region ordered according to laws of which we have at present no cognisance, and which do not appear to harmonise—I do not say they are in contradiction to, but at least they do not appear to harmonise—with those which govern the regions already within our ken.

Let me dwell on this point a little more, as it is one of central interest to all who are engaged in our special investigations. What I am asserting is that the facts which we come across are very *odd* facts, and by that I do not mean merely queer and unexpected: I mean "odd" in the sense that they are out of harmony with the accepted theories of the material world. They are not merely drama-

tically strange, they are not merely extraordinary and striking, but they are "odd" in the sense that they will not easily fit in with the views which physicists and men of science generally give us of the universe in which we live.

In order to illustrate this distinction I will take a very simple instance. I suppose everybody would say that it would be an extraordinary circumstance if at no distant date this earth on which we dwell were to come into collision with some unknown body travelling through space, and, as the result of that collision, be resolved into the original gases of which it is composed. Yet, though it would be an extraordinary, and even an amazing, event, it is, after all, one of which no astronomer, I venture to say, would assert the impossibility. He would say, I suppose, that it was most unlikely, but that if it occurred it would not violate, or even modify, his general theories as to the laws which govern the movements of the celestial bodies. Our globe is a member of the solar system which is travelling I do not know how many miles a second in the direction of the constellation Hercules. There is no *a priori* ground for saying that in the course of that mysterious journey, of the cause of which we are perfectly ignorant, we shall not come across some body in interstellar space which will produce the uncomfortable results which I have ventured to indicate. And, as a matter of fact, in the course of the last two hundred years, astronomers have themselves been witness to stellar tragedies of incomparably greater magnitude than that which would be produced by the destruction of so insignificant a planet as the world in which we happen to be personally interested. We have seen stars which shine from an unknown distance, and are of unknown magnitude, burst into sudden conflagration, blaze brightly for a time, and then slowly die out again. What that phenomenon precisely indicates, of course, we cannot say, but it certainly indicates an accident of a far more startling and tremendous kind than the shattering of our particular world, which to us would, doubtless, seem extraordinary enough.

This, then, is a specimen of what I mean by a dramatically extraordinary event. Now I will give you a case of what I mean by a scientifically extraordinary event, which as you will at once perceive may be one which at first sight, and to many observers, may appear almost common-place and familiar. I have constantly met people who will tell you, with no apparent consciousness that they are saying anything more out of the way than an observation about the weather, that by the exercise of their will they can make anybody at a little distance turn round and look at them. Now such a fact (if fact it be) is far more scientifically extraordinary than would be the destruction of this globe by some such celestial catastrophe as I have imagined. How profoundly mistaken, then, are they who think that this exercise

of will power, as they call it, is the most natural and most normal thing in the world, something that everybody would have expected, something which hardly deserves scientific notice or requires scientific explanation. In reality it is a profound mystery if it be true, or if anything like it be true; and no event, however startling, which easily finds its appropriate niche in the structure of the physical sciences ought to excite half so much intellectual curiosity as this dull and at first sight common-place phenomenon.

Now do not suppose that I want you to believe that every gentleman or lady who chooses to suppose him or herself exceptionally endowed with this so-called will power is other than the dupe of an ill-regulated fancy. There is, however, quite apart from the testimony of such persons a vast mass of evidence in favour of what we now call telepathy; and to telepathy the observations I have been making do in my opinion most strictly apply. For, consider! In every case of telepathy you have an example of action at a distance. Examples of real or apparent action at a distance are of course very common. Gravitation is such an example. We are not aware at the present time of any mechanism, if I may use the phrase, which can transmit gravitational influence from one gravitating body to another. Nevertheless, scientific men do not rest content with that view. I recollect it used to be maintained by the late Mr. John Mill that there was no ground for regarding with any special wonder the phenomenon of action at a distance. I do not dogmatise upon the point, but I do say emphatically that I do not think you will find a first-rate physicist who is prepared to admit that gravity is not a phenomenon which still wants an explanation. He is not ready, in other words, to accept action at a distance as an ultimate fact, though he has not even got the first clue to the real nature of the links by which the attracting bodies mutually act upon one another.

But though gravitation and telepathy are alike in this, that we are quite ignorant of the means by which in either case distant bodies influence one another, it would be a great mistake to suppose that the two modes of operation are equally mysterious. In the case of telepathy there is not merely the difficulty of conjecturing the nature of the mechanism which operates between the agent and the patient, between the man who influences and the man who is influenced; but the whole character of the phenomena refuses to fit in with any of our accepted ideas as to the mode in which force may be exercised from one portion of space to another. Is this telepathic action an ordinary case of action from a centre of disturbance? Is it equally diffused in all directions? Is it like the light of a candle or the light of the sun which radiates equally into space in every direction at the same time? If it is, it must obey the law—at least, we should expect it to obey the

law—of all other forces which so act through a non-absorbing medium, and its effects must diminish inversely as the square of the distance. It must, so to speak, get beaten out thinner and thinner the further it gets removed from its original source. But is this so? Is it even credible that the mere thoughts, or, if you please, the neural changes corresponding to these thoughts, of any individual could have in them the energy to produce sensible effects equally in all directions, for distances which do not, as far as our investigations go, appear to have any necessary limit? It is, I think, incredible; and in any case there is no evidence whatever that this equal diffusion actually takes place. The will power, whenever will is used, or the thoughts, in cases where will is not used, have an effect, as a rule, only upon one or two individuals at most. There is no appearance of general diffusion. There is no indication of any disturbance equal at equal distances from its origin, and radiating from it alike in every direction.

But if we are to reject this idea, which is the first which ordinary analogies would suggest, what are we to put in its place? Are we to suppose that there is some means by which telepathic energy can be directed through space from the agent to the patient, from the man who influences to the man who is influenced? If we are to believe this, as apparently we must, we are face to face not only with a fact extraordinary in itself, but with a kind of fact which does not fit in with anything we know at present in the region either of physics or of physiology. It is true, no doubt, that we do know plenty of cases where energy is directed along a given line, like water in a pipe, or like electrical energy along the course of a wire. But then in such cases there is always some material guide existing between the two termini, between the place from which the energy comes and the place to which the energy goes. Is there any such material guide in the case of telepathy? It seems absolutely impossible. There is no sign of it. We cannot even form to ourselves any notion of its character, and yet, if we are to take what appears to be the obvious lesson of the observed facts, we are forced to the conclusion that in some shape or other it exists. For to suppose that the telepathic agent shoots out his influence towards a particular object, as you shoot a bullet out of a gun, or water out of a hose, which appears to be the only other alternative, involves us seemingly in greater difficulties still.

Here then we are face to face with what I call a scientifically extraordinary phenomenon, as distinguished from a dramatically extraordinary one. Anyone who has endeavoured to wade through the mass of evidence collected by our Society on the subject will be prepared to admit that it is not exciting or interesting in itself, that it does not arouse a foolish wonder, or appeal unduly to any craving

for the marvellous. But dull as these experiments may seem, dull indeed as they often are, their dullness is really one of their great advantages. It effectually excludes some perturbing influences that might otherwise affect, or, which is nearly as bad, be supposed to affect, the cool analysis of the experimental data; and in consequence, it makes these investigations, in my judgment, the best starting point from which to reconsider, should it be necessary, our general view, I will not say of the material universe, but of the universe of phenomena in space and time.

I am, of course, aware that probably a very large number, perhaps the majority, of the members of this Society are accustomed to consider the subjects with which we deal from a somewhat different point of view from that which I have adopted this afternoon, and it is well that this should be so. All arbitrary limitations of our sphere of work are to be avoided. It is our business to record, to investigate, to classify, and, if possible, to explain, facts of a far more startling and impressive character than these modest cases of telepathy. Let us not neglect that business. And if beyond the mere desire to increase knowledge many are animated by a wish to get evidence, not through any process of laborious deduction, but by direct observation, of the reality of intelligences not endowed with a physical organisation like our own, I see nothing in their action to criticise, much less to condemn. But while there is sufficient evidence, in my judgment, to justify all the labours of our Society in this field of research, it is not the field of research which lies closest to the ordinary subjects of scientific study, and, therefore, this afternoon, when I was led to deal rather with the scientific aspects of our work, I have deliberately kept myself within the range of the somewhat unpicturesque phenomena of telepathy. My object has been a very simple one, as I am desirous above all things of enlisting in our service the best experimental and scientific ability which we can command. I have thought it best to endeavour to arrest the attention, and, if possible, to engage the interest of men of science by pointing to the definite and very simple experiments which, simple as they are, yet hint at conclusions not easily to be accommodated with our habitual theories of things. If we can repeat these experiments sufficiently often and under tests sufficiently crucial to exclude the possibility of error, it will be impossible any longer to ignore them, and, willingly or unwillingly, all interested in science will be driven to help, as far as they can, to unravel the refractory class of problems which this Society is endeavouring to solve. What success such efforts will be crowned with, I know not. I have already indicated to you, at the beginning of my remarks, the special class of difficulties which beset our path. We have not at our command the appropriate physical

senses, we have not the appropriate materials for experiment, we are hampered and embarrassed in every direction by credulity, by fraud, by prejudice. Nevertheless, if I rightly interpret the results which these many years of labour have forced upon the members of this Society and upon others not among our number who are associated by a similar spirit, it does seem to me that there is at least strong ground for supposing that outside the world, as we have, from the point of science, been in the habit of conceiving it, there does lie a region, not open indeed to experimental observation in the same way as the more familiar regions of the material world are open to it, but still with regard to which some experimental information may be laboriously gleaned; and even if we cannot entertain any confident hope of discovering what laws these half-seen phenomena obey, at all events it will be some gain to have shown, not as a matter of speculation or conjecture, but as a matter of ascertained fact, that there are things in heaven and earth not hitherto dreamed of in our scientific philosophy.

XIII.

By PROFESSOR WILLIAM JAMES.

January 31st, 1896.

THE Presidency of the Society for Psychical Research resembles a mouse-trap. Broad is the path and wide is the way that leadeth thereinto. Flattering bait is spread before the entrance: the distinguished names of one's predecessors in the office; the absence of any active duties; England and America symbolically made one in that higher republic where no disputed frontiers or foreign offices exist;—and all the rest of it. But when the moment comes to retrace one's steps and go back to private life, like Cincinnatus to his plough, then comes the sorrow, then the penalty for greatness. The careless presidential mouse finds the wires all pointing now against him, and to get out there is no chance, unless he leave some portion of his fur. So in resigning my office to my worthier successor, I send this address to be read across the ocean as my ransom, not unaware, as I write it, that the few things I can say may well fall short of the dignity of the occasion and the needs of the cause for which our Society exists.

Were psychical research as well organised as the other sciences are, the plan of a presidential address would be mapped out in advance. It could be nothing but a report of progress, an account of such new observations and new conceptions as the interim might have brought forth. But our active workers are so few compared with those engaged in more familiar departments of natural learning, and the phenomena we study so fortuitous and occasional, that two years must, as a rule, prove too short an interval for regular accounts of stock to be taken. Looking back, however, on our whole dozen years or more of existence, one can appreciate what solid progress we have made. Disappointing as our career has doubtless been to those of our early members who expected definite corroboration or the final *coup de grâce* to be given in a few short months to such baffling questions as that of physical mediumship, to soberer and less enthusiastic minds the long array of our volumes of *Proceedings* must suggest a feeling of anything but discouragement. For here, for the first time in the history of these perplexing subjects, we find a large collection of records to each of which the editors and reporters have striven to

attach its own precise co-efficient of evidential value, great or small, by getting at every item of first-hand evidence that could be attained, and by systematically pointing out the gaps. Only those who have tried to reach conclusions of their own by consulting the previous literature of the occult, as vague and useless, for the most part, as it is voluminous, can fully appreciate the immense importance of the new method which we have introduced. Little by little, through consistently following this plan, our *Proceedings* are extorting respect from the most unwilling lookers-on, and I should like emphatically to express my hope that the impartiality and completeness of record which has been their distinguishing character in the past, will be held to even more rigorously in the future. It is not as a vehicle of conclusions of our own, but as a collection of documents that may hereafter be resorted to for testing the conclusions and hypotheses of *anybody*, that they will be permanently important. Candour must be their very essence, and all the hesitations and contradictions that the phenomena involve must appear unmitigatedly in their pages.

√ Collections of this sort are usually best appreciated by the rising generation. The young anthropologists and psychologists who will soon have full occupancy of the stage will feel, as we have felt, how great a scientific scandal it has been to leave a great mass of human experience to take its chances between vague tradition and credulity on the one hand and dogmatic denial at long range on the other, with nobody of persons extant who are willing and competent to study the matter with both patience and rigour. There have been isolated experts, it is true, before now. But our Society has for the first time ↑ made their abilities mutually helpful.

If I were asked to give some sort of dramatic unity to our history, I should say first that we started with high hopes that the hypnotic field would yield an important harvest, and that these hopes have subsided with the general subsidence of what may be called the hypnotic wave. Secondly, I should say that experimental thought-transference has yielded a less abundant return than that which in the first year or two seemed not unlikely to come in. Professor Richet's supposition that if the unexplained thing called thought-transference be ever real, its causes must, to some degree, work in everybody at all times (so that in any long series of card-guessings, for example, there ought always to be some excess of right answers above the chance number) is, I am inclined to think, not very well substantiated. Thought-transference may involve a critical point, as the physicists call it, which is passed only when certain psychic conditions are realized, and otherwise not reached at all—just as a big conflagration will break out at a certain temperature, below which no conflagration

whatever, whether big or little, can occur. We have published records of experiments on at least thirty subjects, roughly speaking, and many of these were strikingly successful. But their types are heterogeneous; in some cases the conditions were not faultless; in others the observations were not prolonged; and generally speaking, we must all share in a regret that the evidence, since it has reached the point it *has* reached, should not grow more voluminous still. For whilst it cannot be ignored by the candid mind, it yet, as it now stands, may fail to convince coercively the sceptic. Any day, of course, may bring in fresh experiments in successful picture-guessing. But meanwhile, and lacking that, we can only point out that our present data are strengthened in the flank, so to speak, by all observations that tend to corroborate the possibility of other kindred phenomena, such as telepathic impression, clairvoyance, or what is called "test-mediumship." The wider genus will naturally cover the narrower species with its credit.

Now, as regards the work of the Society in these latter regards, we can point to solid progress. First of all we have that masterpiece of intelligent and thorough scientific work—I use my words advisedly—the Sidgwick Report on the Census of Hallucinations. Against the conclusion of this report, that death-apparitions are 440 times more numerous than they should be according to chance, the only rational answer that I can see is that the data are still too few, that the net was not cast wide enough, and that we need, to get fair averages, far more than 17,000 answers to the Census-question. This may, of course, be true, though it seems exceedingly unlikely, and in our own 17,000 answers veridical cases may have heaped themselves unduly. So neither by this report then, taken alone, is it absolutely necessary that the sceptic be definitively convinced. But then we have, to strengthen *its* flank in turn, the carefully studied cases of "Miss X." and Mrs. Piper, two persons of the constitution now coming to be nicknamed "psychic" (a bad term, but a handy one), each person of a different psychic type, and each presenting phenomena so chronic and abundant that, to explain away the supernatural knowledge displayed, the disbeliever will certainly rather call the subjects deceivers, and their believers dupes, than resort to the theory of chance-coincidence. The same remark holds true of the extraordinary case of Stainton Moses, concerning which Mr. Myers has recently given us such interesting documents. In all these cases (as Mr. Lang has well said of the latter one) we are, it seems to me, fairly forced to choose between a physical and a moral miracle. The physical miracle is that knowledge may come to a person otherwise than by the usual use of eyes and ears. The moral miracle is a kind of deceit so perverse and successful as to find no parallel in usual

experience. But the limits of possible perversity and success in ↙deceit are hard to draw—so here again the sceptic may fall back on his general *non possumus*, and without pretending to explain the facts in detail, say the presumption from the ordinary course of Nature still holds good against their supernormal interpretation. But the oftener one is forced to reject an alleged sort of fact by the method of falling back on the mere presumption that it can't be true because, so far as we know Nature, Nature runs altogether the other way, the weaker does the presumption itself get to be ; and one might in course of time use up one's presumptive privileges in this way, even though one started (as our anti-telepathists do) with as good a case as the great induction of psychology that all our knowledge comes by the use of our eyes and ears and other senses. And we must remember also that this undermining of the strength of a presumption by reiterated report of facts to the contrary does not logically require that the facts in question should all be well proved. A lot of rumours in the air against a business man's credit, though they might all be vague, and no one of them amount to proof that he is unsound, would certainly weaken the *presumption* of his soundness. And all the more would they have this effect if they formed what our lamented Gurney called a faggot and not a chain, that is, if they were independent of each other, and came from different quarters. Now our evidence for telepathy, weak and strong, taken just as it comes, forms a faggot and not a chain. No one item cites the content of another item as part of its own proof. But, taken together, the items have a certain general consistency ; there is a method in their madness, so to speak. So each of them adds presumptive value to the lot ; and cumulatively, as no candid mind can fail to see, they subtract presumptive force from the orthodox belief that there can be nothing in any one's intellect that has not come in through ordinary experiences of sense.

But it is a miserable thing for a question of truth to be confined to mere presumption and counter-presumption, with no decisive thunderbolt of fact to clear the baffling darkness. And sooth to say, in talking so much of the merely presumption-weakening value of our records, I have been wilfully taking the point of view of the so-called "rigorously scientific" disbeliever, and making an *ad hominem* plea. My own point of view is different. For me the thunderbolt *has* fallen, and the orthodox belief has not merely had its presumption weakened, but the truth itself of the belief is decisively overthrown. If you will let me use the language of the professional logic-shop, a universal proposition can be made untrue by a particular instance. If you wish to upset the law that all crows are black, you mustn't seek to show that no crows are ; it is enough if you prove one single crow to be white. My own white crow is Mrs. Piper. In the trances of

this medium, I cannot resist the conviction that knowledge appears which she has never gained by the ordinary waking use of her eyes and ears and wits. What the source of this knowledge may be I know not, and have not the glimmer of an explanatory suggestion to make; but from admitting the fact of such knowledge, I can see no escape. So when I turn to the rest of our evidence, ghosts and all, I cannot carry with me the irreversibly negative bias of the rigorously scientific mind, with its presumption as to what the true order of nature ought to be. I feel as if, though the evidence be flimsy in spots, it may nevertheless collectively carry heavy weight. The rigorously scientific mind may, in truth, easily overreach itself. Science means, first of all, a certain dispassionate method. To suppose that it means a certain set of results that one should pin one's faith upon and hug forever, is sadly to mistake its genius, and degrades the scientific body to the status of a sect. ↗

But I am devoting too many words to scientific logic, and too few to my review of our career. In the question of physical mediumship, we have left matters as baffling as we found them, neither more nor less. For if, on the one hand, we have brought out new documents concerning the physical miracles of Stainton Moses, on the other hand we have, by the Hodgson-Davey experiments, and the Paladino episode, very largely increased the probability that testimony based on certain sorts of observation may be quite valueless as proof. Eusapia Paladino has been to us both a warning and an encouragement. An encouragement to pursue unwaveringly the rigorous method in such matters from which our *Proceedings* have never departed, and a warning against drawing any prompt inference whatever from things that happen in the dark. The conclusions to which some of us had been hastily led on "the island," melted away when, in Cambridge, the opportunity for longer and more cunning observation was afforded. Some day, it is to be hoped, our *Proceedings* may be enabled to publish a complete study of this woman's life. Whatever were the upshot of such a study, few documents could be more instructive in all ways for psychical research.

It is pleasant to turn from phenomena of the dark-sitting and rat-hole type (with their tragi-comic suggestion that the whole order of nature might possibly be overturned in one's own head, by the way in which one imagined oneself, on a certain occasion, to be holding a tricky peasant woman's feet) to the "calm air of delightful studies." And on the credit-side of our Society's account a heavy entry must next be made in favour of that immense and patient collecting of miscellaneous first-hand documents that alone has enabled Mr. Myers to develop his ideas about automatism and the subliminal self. In

Mr. Myers' papers on these subjects we see, for the first time in the history of men's dealings with occult matters, the whole range of them brought together, illustrated copiously with unpublished contemporary data, and treated in a thoroughly scientific way. All constructions in this field must be provisional, and it is as something provisional that Mr. Myers offers us his attempt to put order into the tangle. But, thanks to his genius, we begin to see for the first time what a vast interlocked and graded system these phenomena, from the rudest motor automatisms to the most startling sensory apparition, form. Mr. Myers' methodical treatment of them by classes and series is the first great step towards overcoming the distaste of orthodox science to look at them at all.

But our *Proceedings* contain still other veins of ore for future working. Ghosts, for example, and disturbances in haunted houses. These, whatever else may be said of them at present, are not without bearing on the common scientific presumption of which I have already perhaps said too much. Of course, one is impressed by such narratives after the mode in which one's impressibility is fashioned. I am not ashamed to confess that in my own case, although my judgment remains deliberately suspended, my feeling towards the way in which the phenomena of physical mediumship should be approached has received from ghost and disturbance-stories a distinctly charitable lurch. Science may keep saying: "such things are simply impossible;" yet, so long as the stories multiply in different lands, and so few are positively explained away, it is bad method to ignore them. They should at least accrete for future use. As I glance back at my reading of the past few years (reading accidental so far as these stories go, since I have never followed up the subject) ten cases immediately rise to my mind. The Phelps-case at Andover, recorded by one of the family, in *McClure's Magazine* for this month; a case in China, in Nevius's *Demon Possession*, published last year; the case in John Wesley's life; the "*Amherst Mystery*" in Nova Scotia, (New York, 1888); the case in Mr. Willis's house at Fitchburg, recorded in *The Atlantic Monthly* for August, 1868 (XXII., 129); the Telfair-Mackie case, in Sharpe's *History of Witchcraft* in Scotland; the Morse case, in Upham's *Salem Witchcraft*; the case recounted in the introduction of W. v. Humboldt's *Briefe an eine Freundin*; a case in the *Annales des Sciences Psychiques* for last year (p. 86); the case of the carpenter's shop at Swanland, near Hull, in our *Proceedings*, Vol. VII., Part XX., pp. 383 — 394. In all of these, if memory doesn't deceive me, material objects are said to have been witnessed by many persons moving through the air in broad daylight. Often the objects were multitudinous—in some cases they were stones showered through windows and down-chimney.

More than once it was noted that they fell gently and touched the ground without shock. Apart from the exceptionality of the reputed occurrences, their mutual resemblances suggest a natural type, and I confess that until these records, or others like them, are positively explained away, I cannot feel (in spite of such vast amounts of detected fraud) as if the case against physical mediumship itself as a freak of nature were definitively closed. But I admit that one man's psychological reaction cannot here be like unto another's; and one great duty of our Society will be to pounce upon any future case of this "disturbance" type, catch it while red-handed and nail it fast, whatever its quality be.

We must accustom ourselves more and more to playing the rôle of a meteorological bureau, be satisfied for many a year to go without definitive conclusions, confident that if we only keep alive and heap up data, the natural types of them (if there are any) will surely crystallize out; whilst old material that is baffling will get settled as we proceed, through its analogy with new material that will come with the baffling character removed.

But I must not weary your patience with the length of my discourse. One general reflection, however, I cannot help asking you to let me indulge in before I close. It is relative to the influence of psychical research upon our attitude towards human history. Although, as I said before, Science taken in its essence should stand only for a method, and not for any special beliefs, yet, as habitually taken by its votaries, Science has come to be identified with a certain fixed general belief, the belief that the deeper order of Nature is mechanical exclusively, and that non-mechanical categories are irrational ways of conceiving and explaining even such a thing as human life. Now this mechanical rationalism, as one may call it, makes, if it becomes one's only way of thinking, a violent breach with the ways of thinking that have, until our own time, played the greatest part in human history. Religious thinking, ethical thinking, poetical thinking, teleological, emotional, sentimental thinking, what one might call the personal view of life to distinguish it from the impersonal and mechanical view, and the romantic view of life to distinguish it from the rationalistic view, have been, and even still are, outside of well-drilled scientific circles, the dominant forms of thought. But for mechanical rationalism, personality is an insubstantial illusion; the chronic belief of mankind, that events may happen for the sake of their personal significance, is an abomination; and the notions of our grandfathers about oracles and omens, divinations and apparitions, miraculous changes of heart and wonders worked by inspired persons, answers to prayer and

providential leadings, are a fabric absolutely baseless, a mass of sheer untruth. Now, of course, we must all admit that the excesses to which the romantic and personal view of Nature may lead, if wholly unchecked by impersonal rationalism, are direful. Central African Mumbo-jumboism is one of unchecked romanticism's fruits. One ought accordingly to sympathize with that abhorrence of romanticism as a sufficient world-theory; one ought to understand that lively intolerance of the least grain of romanticism in the views of life of other people, which are such characteristic marks of those who follow the scientific professions to-day. Our debt to Science is literally boundless, and our gratitude for what is positive in her teachings must be correspondingly immense. But our own *Proceedings* and *Journals* have, it seems to me, conclusively proved one thing to the candid reader, and that is that the verdict of pure insanity, of gratuitous preference for error, of superstition without an excuse, which the scientists of our day are led by their intellectual training to pronounce upon the entire thought of the past, is a most shallow verdict. The personal and romantic view of life has other roots beside wanton exuberance of imagination and perversity of heart. It is perennially fed by *facts of experience*, whatever the ulterior interpretation of those facts may prove to be, and at no time in human history would it have been less easy than now—at most times it would have been much more easy—for advocates with a little industry to collect in its favour an array of contemporary documents as good as those which our publications present. These documents all relate to real experiences of persons. These experiences have three characters in common: they are capricious, discontinuous, and not easily controlled; they require peculiar persons for their production; their significance seems to be wholly for personal life. Those who preferentially attend to them, and still more those who are individually subject to them, not only easily *may* find but are logically bound to find in them valid arguments for their romantic and personal conception of the world's course. Through my slight participation in the investigations of the Society for Psychical Research, I have become acquainted with numbers of persons of this sort, for whom the very word Science has become a name of reproach, for reasons that I now both understand and respect. It is the intolerance of Science for such phenomena as we are studying, her peremptory denial either of their existence, or of their significance except as proofs of man's absolute innate folly, that has set Science so apart from the common sympathies of the race. I confess that it is on this, its humanizing mission, that our Society's best claim to the gratitude of our generation seems to me to depend. We have restored continuity to history. We have shown some reasonable basis for the most superstitious aberrations of the foretime. We have bridged the chasm, healed the hideous

rift that Science, taken in a certain narrow way, has shot into the human world.

I will even go one step further. When from our present advanced standpoint we look back upon the past stages of human thought, whether it be scientific thought or theological thought, we are amazed that a Universe which appears to us of so vast and mysterious a complication should ever have seemed to any one so little and plain a thing. Whether it be Descartes' world or Newton's; whether it be that of the materialists of the last century or that of the Bridgewater treatises of our own; it always looks the same to us—incredibly perspectiveless and short. Even Lyell's, Faraday's, Mill's, and Darwin's consciousness of their respective subjects are already beginning to put on an infantile and innocent look. Is it then likely that the Science of our own day will escape the common doom, that the minds of its votaries will never look old-fashioned to the grandchildren of the latter? It would be folly to suppose so. Yet, if we are to judge by the analogy of the past, when our Science once becomes old-fashioned, it will be more for its omissions of fact, for its ignorance of whole ranges and orders of complexity in the phenomena to be explained, than for any fatal lack in its spirit and principles. The spirit and principles of Science are mere affairs of method; there is nothing in them that need hinder Science from dealing successfully with a world in which personal forces are the starting-point of new effects. The only form of thing that we directly encounter, the only experience that we concretely have, is our own personal life. The only complete category of our thinking, our professors of philosophy tell us, is the category of personality, every other category being one of the abstract elements of that. And this systematic denial on Science's part of personality as a condition of events, this rigorous belief that in its own essential and innermost nature our world is a strictly impersonal world, may, conceivably, as the whirligig of time goes round, prove to be the very defect that our descendants will be most surprised at in our own boasted Science, the omission that, to their eyes, will most tend to make *it* look perspectiveless and short.

But these things lie upon the knees of the gods. I must leave them there, and close now this discourse, which I regret that *I* could not make more short. If it has made you feel that (however it turn out with modern Science) our own Society, at any rate, is not "perspectiveless," it will have amply served its purpose; and the next President's address may have more definite conquests to record.

XIV.

By SIR WILLIAM CROOKES, F.R.S.

January 29th, 1897.

THE task I am called upon to perform to-day is to my thinking by no means a merely formal or easy matter. It fills me with deep concern to give an address, with such authority as a President's chair confers, upon a science which, though still in a purely nascent stage, seems to me at least as important as any other science whatever. Psychological science, as we here try to pursue it, is the embryo of something which in time may dominate the whole world of thought. This possibility—nay probability—does not make it the easier to me now. Embryonic development is apt to be both rapid and interesting; yet the prudent man shrinks from dogmatising on the egg until he has seen the chicken.

Nevertheless, I desire, if I can, to say a helpful word. And I ask myself what kind of helpful word. Is there any connexion between my old-standing interest in psychical problems and such original work as I may have been able to do in other branches of science?

I think there is such a connexion—that the most helpful quality which has aided me in psychical problems and has made me lucky in physical discoveries (sometimes of rather unexpected kinds), has simply been my knowledge—my *vital* knowledge, if I may so term it—of my own ignorance.

Most students of Nature sooner or later pass through a process of writing off a large percentage of their supposed capital of knowledge as a merely illusory asset. As we trace more accurately certain familiar sequences of phenomena, we begin to realise how closely these sequences, or laws, as we call them, are hemmed round by still other laws of which we can form no notion. With myself, this writing off of illusory assets has gone rather far; and the cobweb of supposed knowledge has been pinched (as some one has phrased) into a particularly small pill.

I am not disposed to bewail the limitations imposed by human ignorance. On the contrary, I feel ignorance is a healthful stimulant; and my enforced conviction that neither I nor any one can possibly lay down beforehand what does *not* exist in the universe, or even what is *not* going on all round us every day of our lives, leaves me with a cheerful hope that something very new and very arresting may turn up anywhere at any minute.

Well, it was with this attitude of a mind "to let," which first brought me across Mr. D. D. Home, and which led to my getting a glimpse of

some important laws of matter and energy of which I fear many of my fellow physicists still prefer to be uncognizant. It is this same accessible temper of mind which leads me to follow the problems of the Society for Psychical Research with an interest which, if somewhat calmed by advancing years, and by a perception of the inevitable slowness of discovery, is still as deep a feeling as any which life has left me. And I shall try to utilise this temper of mind to-day by clearing away, so far as I can, certain presuppositions, on one side or on the other, which seem to me to depend upon a too hasty assumption that we know more about the universe than as yet we really can know.

I will take the most essential part first, and address myself to those who believe with me in the survival of man's individuality after death. I will point out a curious, inveterate, and widespread illusion,—the illusion that our earthly bodies are a kind of norm of humanity, so that ethereal bodies, if such there be, must correspond to them in shape and size.

When we take a physical view of a human being in his highest form of development, he is seen to consist essentially of a thinking brain, the brain itself, among its manifold functions, being a transformer whereby intelligent will-power is enabled to react on matter. To communicate with the external world, the brain requires organs by which it can be transported from place to place, and other organs by means of which energy is supplied to replace that expended in the exercise of its own special functions. Again, waste of tissue and reparation have to be provided for; hence the necessity for organs of digestion, assimilation, circulation, respiration, &c., to carry on these processes effectually; and when we consider that this highly complex organ is fitted to undergo active work for the best part of a century, we cannot but marvel that it can keep in tune so long. The human creature represents the most perfect thinking and acting machine yet evolved on this earth, developing through countless ages in strict harmony with the surrounding conditions of temperature, atmosphere, light and gravitation. The profound modifications in the human frame which any important alteration in either of these factors would occasion are strangely unconsidered. It is true there have been questionings as to the effects that might be occasioned by changes in temperature and atmospheric composition, but possible variations in gravitation seem almost to have escaped notice. The human body, which long experience and habit have taught us to consider in its highest development as the perfection of beauty and grace,—“formed in the image of God,”—is entirely conditioned by the strength of gravitation on this globe. So far as has been possible to ascertain, the intensity of gravity has not varied appreciably within those

geologic ages covering the existence of animated thinking beings. The human race, therefore, has passed through all its periods of evolution and development, in strict conformity with and submission to this dominant power, until it is difficult to conceive any great departure from the narrow limits imposed on the proportions of the human frame.

In the first place, I wish to consider what transformation in our appearance would be produced by a change in the force of gravitation. Let us take extreme cases. Say that the power of gravitation were to be doubled. In that case we should have to exert a vastly increased strength to support ourselves in any other than the prone or dorsal position—it would be hard to rise from the ground, to run, leap, climb, to drag or carry any object. Our muscles would necessarily be more powerful, and the skeleton to which they are attached would need corresponding modification. To work such limbs a more rapid transformation of matter would be required; hence the supply of nutriment must be greater, involving enlarged digestive organs, and a larger respiratory apparatus to allow of the perfect aëration of the increased mass of the blood. To keep up the circulation with the necessary force, either the heart would have to be more powerful or the distance through which the blood would require to be impelled must be reduced. The increased amount of nourishment demanded would involve a corresponding increase in the difficulty of its collection, and the struggle for existence would be intensified. More food being required day by day, the jaws would have to be enlarged and the muscles strengthened. The teeth also must be adapted for extra-tearing and grinding.

These considerations involve marked changes in the structure of human beings. To accord with thickened bones, bulging muscles, and larger respiratory and digestive apparatus, the body would be heavier and more massive. The necessity for such alterations in structure would be increased by the liability to fall. The necessity of keeping the centre of gravity low, and the great demands made on the system in other respects must conspire to reduce the size of head and brain. With increase of gravitation, the bipedal form would be beset by drawbacks. Assuming that the human race, under the altered circumstances, remained bipedal, it is highly probable that a large increase in the quadruped, hexapod, or octopod structure would prevail in the animal kingdom. The majority of animals would be of the Saurian class with very short legs, allowing the trunk to rest easily on the ground, and the serpent type would probably be in the ascendant. Winged creatures would suffer severely, and small birds and insects would be dragged to earth by a force hard to resist; although this might be more or less compensated by the increased density of the air.

Humming birds, dragon-flies, butterflies, and bees, all of which spend a large portion of their time in the air, would, in the struggle for existence, be rare visitants. Hence the fertilisation of flowers by the intervention of insects must be thwarted; and this would lead to the extinction, or at all events to a scarcity, of entomophilous plants, *i.e.*, all those with the showiest blossoms—a gloomy result to follow from a mere increase of the earth's attraction.

But having known no other type of human form, it is allowable to think that, under these different conditions, Man would still consider Woman—though stunted, thick-limbed, flat-footed, with enormous jaws underlying a diminutive skull—as the highest type of beauty!

Decreased attraction of the earth might be attended with another set of changes scarcely less remarkable. With the same expenditure of vital energy as at present, and with the same quantity of transformation of matter, we should be able to lift heavier weights, to take longer bounds, to move with greater swiftness, and to undergo prolonged muscular exertion with less fatigue—possibly to fly. Hence the transformation of matter required to keep up animal heat, and to restore the waste of energy and tissue, would be smaller for the same amount of duty done. A less volume of blood, reduced lungs and digestive organs would be required. Thus we might expect a set of structural changes of an inverse nature to those resulting from intensified gravitation. All parts of the body might safely be constructed upon a less massive plan—a slighter skeleton, smaller muscles, and slenderer trunk. These modifications, in a less degree than we are contemplating, tend in the present to beauty of form, and it is easy to imagine our æsthetic feelings would naturally keep pace with further developments in the direction of grace, slenderness, symmetry, and tall figures.

It is curious that the popular conceptions of evil and malignant beings are of the type that would be produced by increased gravitation,—toads, reptiles, and noisome creeping things,—while the Arch Fiend himself is represented as perhaps the ultimate form which could be assumed by a thinking brain and its necessary machinery were the power of gravitation to be increased to the highest point compatible with existence—a serpent crawling along the ground. On the other hand, our highest types of beauty are those which would be common under decreased gravitation.

The “daughter of the gods, divinely tall,” and the leaping athlete, please us by the slight triumph over the earthward pull which their stature or spring implies. It is true we do not correspondingly admire the flea, whose triumph over gravitation, unaided by wings, is so striking. Marvellous as is the flea, its body, like ours, is strictly conditioned by gravitation.

But popular imagination presupposes spiritual beings to be utterly independent of gravitation, whilst retaining shapes and proportions which gravitation originally determined, and only gravitation seems likely to maintain.

When and if spiritual beings make themselves visible either to our bodily eyes or to our inward vision, their object would be thwarted were they not to appear in a recognisable form; so that their appearance would take the shape of the body and clothing to which we have been accustomed. Materiality, form, and space, I am constrained to believe, are temporary conditions of our present existence. It is difficult to conceive the idea of a spiritual being having a body like ours, conditioned by the exact gravitating force exerted by the earth, and with organs which presuppose the need for food and necessity for the removal of waste products. It is equally difficult, hemmed in and bound round as we are by materialistic ideas, to think of intelligence, thought, and will, existing without form or matter, and untrammelled by gravitation or space.

Men of science before now have had to face a similar problem. In some speculations on the nature of matter, Faraday¹ expressed himself

¹ "If we must assume at all, as indeed in a branch of knowledge like the present we can hardly help it, then the safest course appears to be to assume as little as possible, and in that respect the atoms of Boscovich appear to me to have a great advantage over the more usual notion. His atoms are mere centres of forces or powers, not particles of matter, in which the powers themselves reside."

"If in the ordinary view of atoms, we call the particle of matter away from the powers a , and the system of powers or forces in and around it m , then in Boscovich's theory a disappears, or is a mere mathematical point, whilst in the usual notion it is a little unchangeable, impenetrable piece of matter, and m is an atmosphere of force grouped around it."

"To my mind therefore, the a or nucleus vanishes, and the substance consists of the powers or m ; and indeed, what notion can we form of the nucleus independent of its powers? All our perception and knowledge of the atom, and even our fancy, is limited to ideas of its powers: what thought remains on which to hang the imagination of an a independent of the acknowledged forces?"

"A mind just entering on the subject may consider it difficult to think of the powers of matter independent of a separate something to be called *the matter*, but it is certainly far more difficult, and indeed impossible, to think of or imagine that *matter* independent of the powers. Now the powers we know and recognise in every phenomenon of the creation, the abstract matter in none; why then assume the existence of that of which we are ignorant, which we cannot conceive, and for which there is no philosophical necessity?"

"If an atom be conceived to be a centre of power, that which is ordinarily referred to under the term *shape* would be now referred to the disposition and relative intensity of the forces. . . . Nothing can be supposed of the disposition of forces in and about a solid nucleus of matter, which cannot be equally conceived with respect to a centre."

"The view now stated of the constitution of matter would seem to involve necessarily the conclusion that matter fills all space. . . . In that view matter is not merely mutually penetrable, but each atom extends, so to say, throughout the whole of the solar system, yet always retaining its own centre of force."—FARADAY, "On the Nature of Matter," *Phil. Mag.*, 1844, vol. xxiv., p. 136.

in language which, *mutatis mutandis*, applies to my present surmises. This earnest philosopher was speculating on the ultimate nature of matter ; and, thinking of the little, hard, impenetrable atom of Lucretius, and the forces or forms of energy appertaining to it, he felt himself impelled to reject the idea of the existence of the nucleus altogether, and to think only of the forces and forms of energy usually associated therewith. He was led to the conclusion that this view necessarily involved the surmise that the atoms are not merely mutually penetrable, but that each atom, so to say, extends throughout all space, yet always retaining its own centre of force.¹

A view of the constitution of matter which recommended itself to Faraday as preferable to the one ordinarily held, appears to me to be exactly the view I endeavour to picture as the constitution of spiritual beings. Centres of intellect, will, energy, and power, each mutually penetrable, whilst at the same time permeating what we call space ; but each centre retaining its own individuality, persistence of self, and memory. Whether these intelligent centres of the various spiritual forces which in their aggregate go to make up Man's character or Karma, are also associated in any way with the forms of energy which, centred, form the material atom,—whether these spiritual entities are material, not in the crude, gross sense of Lucretius, but material as sublimated through the piercing intellect of Faraday,—is one of those mysteries which to us mortals will perhaps ever remain an unsolved problem.

My next speculation is more difficult, and is addressed to those who not only take too terrestrial a view, but who deny the plausibility—nay, the possibility—of the existence of an unseen world at all. I reply we are demonstrably standing on the brink, at any rate, of one unseen world. I do not here speak of a spiritual or immaterial world. I speak of the world of the infinitely little, which must be still called a material world, although matter as therein existing or perceptible is something which our limited faculties do not enable us to conceive. It is the world—I do not say of molecular forces as opposed to molar, but of forces whose action lies mainly outside the limit of human perception, as opposed to forces evident to the gross perception of human organisms. I hardly know how to make clear to myself or to you the difference in the apparent laws of the universe which would follow upon a mere difference of bulk in the observer. Such an observer I must needs imagine as best I can. I shall not attempt to rival the vividness of the great satirist who, from a postulated difference of size far less considerable, deduced in "Gulliver's Travels" the absurdity, and the mere relativity, of so much in human morals, politics, society. But I

¹ I may say, in passing, that the modern vortex atom also fulfils these conditions.

shall take courage from the example of my predecessor in this chair, Professor William James of Harvard, from whom later I shall cite a most striking parable of precisely the type I seek.

You must permit me, then, a homunculus on whom to hang my speculation. I cannot place him actually amid the interplay of molecules, for lack of power to imagine his environment; but I shall make him of such microscopic size that molecular forces which in common life we hardly notice,—such as surface-tension, capillarity, the Brownian movements,—become for him so conspicuous and dominant that he can hardly believe, let us say, in the universality of gravitation, which we may suppose to have been revealed to him by ourselves, his creators.

Let us place him on a cabbage leaf, and let him start for himself.

The area of the cabbage-leaf appears to him as a boundless plain many square miles in extent. To this minimised creature the leaf is studded with huge glittering transparent globes, resting motionless on the surface of the leaf, each globe vastly exceeding in height the towering Pyramids. Each of these spheres appears to emit from one of its sides a dazzling light. Urged by curiosity he approaches and touches one of the orbs. It resists pressure like an india-rubber ball, until accidentally he fractures the surface, when suddenly he feels himself seized and whirled and brought somewhere to an equilibrium, where he remains suspended in the surface of the sphere utterly unable to extricate himself. In the course of an hour or two he finds the globe diminishing, and ultimately it disappears, leaving him at liberty to pursue his travels. Quitting the cabbage-leaf, he strays over the surface of the soil, finding it exceedingly rocky and mountainous, until he sees before him a broad surface akin to the kind of matter which formed the globes on the cabbage-leaf. Instead, however, of rising upwards from its support, it now slopes downwards in a vast curve from the brink, and ultimately becomes apparently level, though, as this is at a considerable distance from the shore, he cannot be absolutely certain. Let us now suppose that he holds in his hand a vessel bearing the same proportion to his minimised frame that a pint measure does to that of a man as he is, and that by adroit manipulation he contrives to fill it with water. If he inverts the vessel he finds that the liquid will not flow, and can only be dislodged by violent shocks. Wearied by his exertions to empty the vessel of water, he sits on the shore, and idly amuses himself by throwing stones and other objects into the water. As a rule the stones and other wet

¹ I need hardly say that in this fanciful sketch, composed only for an illustrative purpose, all kinds of problems (as of the homunculus's own structure and powers) are left untouched, and various points which would really need to be mathematically worked out are left intentionally vague.

bodies sink, although when dry they obstinately refuse to go to the bottom, but float on the surface. He tries other substances. A rod of polished steel, a silver pencil-case, some platinum wire, and a steel pen, objects two or three times the density of the stones, refuse to sink at all, and float on the surface like so many bits of cork. Nay, if he and his friends manage to throw into the water one of those enormous steel bars which we call needles, this also makes a sort of concave trough for itself on the surface, and floats tranquilly. After these and a few more observations, he theorises on the properties of water and of liquids in general. Will he come to the conclusion that liquids seek their own level; that their surfaces when at rest are horizontal, and that solids when placed in a liquid, sink or float according to their higher or lower specific gravity? No; he will feel justified in inferring that liquids, at rest, assume spherical, or at least curvilinear forms, whether convex or concave, depending upon circumstances not easily ascertained; that they cannot be poured from one vessel to another, and resist the force of gravitation, which is consequently not universal; and that such bodies as he can manipulate generally refuse to sink in liquids, whether their specific gravity be high or low. From the behaviour of a body placed in contact with a dew-drop he will even derive plausible reasons for doubting the inertia of matter.

Already he has been somewhat puzzled by the constant and capricious bombardment of cumbrous objects like portmanteaus flying in the air; for the gay motes that people the sunbeams will dance somewhat unpleasantly for a microscopic homunculus who can never tell where they are coming. Nay, what he has understood to be the difficulty experienced by living creatures in rising from the earth, except with wings, will soon seem absurdly exaggerated. For he will discern a terrific creature, a Behemoth "in plated mail," leaping through the skies in frenzied search for prey; and for the first time due homage will be rendered to the majesty of the common flea.

Perturbed by doubts, he will gaze at night into some absolutely tranquil pool. There, with no wind to ruffle, nor access of heat to cause currents or change surface-tension, he perceives small inanimate objects immersed and still. But are they still? No! One of them moves; another is moving. Gradually it is borne in upon him that whenever any object is small enough it is always in motion. Perhaps our homunculus might be better able than we are to explain these so-called Brownian movements. Or the guess might be forced upon him that he who sees this sight is getting dim glimpses of the ultimate structure of matter, and that these movements are residual, the result of the inward molecular turmoil which has not cancelled itself out into nullity, as it must needs do in aggregations of matter of more than the smallest microscopic dimensions.

Things still more tormentingly perplexing, our homunculus would doubtless encounter. And these changes in his interpretation of phenomena would arise not from his becoming aware of any forces hitherto overlooked, still less from the disappearance of laws now recognised, but simply from the fact that his supposed decrease in bodily size brings capillarity, surface-tension, &c., into a relative prominence they do not now possess. To full-grown rational beings the effects of these forces rank among residual phenomena which attract attention only when science has made a certain progress. To *homunculi*, such as we have imagined, the same effects would be of capital importance, and would be rightly interpreted not as something supplementary to those of general gravitation, but as due to an independent and possibly antagonistic force.

The physics of these *homunculi* would differ most remarkably from our own. In the study of heat they would encounter difficulties probably insuperable. In this branch of physical investigation little can be done unless we have the power at pleasure of raising and lowering the temperature of bodies. This requires the command of fire. Actual man, in a rudimentary state of civilisation, can heat and ignite certain kinds of matter by friction, percussion, concentrating the sun's rays, &c. ; but before these operations produce actual fire they must be performed upon a considerable mass of matter, otherwise the heat is conducted or radiated away as rapidly as produced, and the point of ignition seldom reached.

Nor could it be otherwise with the chemistry of the little people, if, indeed, such a science be conceived as at all possible for them.

It can scarcely be denied that the fundamental phenomena which first led mankind into chemical enquiries are those of combustion. But, as we have just seen, minimised beings would be unable to produce fire at will, except by certain chemical reactions, and would have little opportunity of examining its nature. They might occasionally witness forest fires, volcanic eruptions, &c. ; but such grand and catastrophic phenomena, though serving to reveal to our supposed Lilliputians the existence of combustion, would be ill-suited for quiet investigation into its conditions and products. Moreover, considering the impossibility they would experience of pouring water from one test-tube to another, the ordinary operations of analytical chemistry, and of all manipulations depending on the use of the pneumatic trough, would remain forever a sealed book.

Let us for a moment go to the opposite extreme, and consider how Nature would present itself to human beings of enormous magnitude. Their difficulties and misconstructions would be of an opposite nature to those experienced by pigmies. Capillary attraction and the cohesion of liquids, surface tension and the curvature of liquid surfaces near

their boundary, the dew drop and the behaviour of minute bodies on a globule of water, the flotation of metals on the surface of water, and many other familiar phenomena, would be either ignored or unknown. The *homunculus* able to communicate but a small momentum would find all objects much harder than they appear to us, whilst to a race of colossal granite rocks would be but a feeble impediment.

There would be another most remarkable difference between such enormous beings and ourselves: if we stoop and take up a pinch of earth between fingers and thumb, moving those members, say, through the space of a few inches in a second of time, we experience nothing remarkable. The earth offers a little resistance, more or less, according to its greater or less tenacity, but no other perceptible reaction follows.

Let us suppose the same action performed by a gigantic being, able to move finger and thumb in a second's space through some miles of soil in the same lapse of time, and he would experience a very decided reaction. The mass of sand, earth, stones, and the like, hurled together in such quantities and at such speed, would become intensely hot. Just as the homunculus would fail to bring about ignition when he desired, so the colossus could scarcely move without causing the liberation of a highly inconvenient degree of heat, literally making everything too hot to hold. He would naturally ascribe to granite rocks and the other constituents of the earth's surface such properties as we attribute to phosphorus—of combustion on being a little roughly handled.

Need I do more than point the obvious lesson? If a possible—nay, reasonable—variation in only one of the forces conditioning the human race—that of gravitation—could so modify our outward form, appearance, and proportions, as to make us to all intents and purposes a different race of beings; if mere differences of size can cause some of the most simple facts in chemistry and physics to take so widely different a guise; if beings microscopically small and prodigiously large would simply as such be subject to the hallucinations I have pointed out—and to others I might enlarge upon;—is it not possible that we, in turn, though occupying, as it seems to us, the golden mean, may also by the mere virtue of our size and weight fall into misinterpretations of phenomena from which we should escape were we or the globe we inhabit either larger or smaller, heavier or lighter? May not our boasted knowledge be simply conditioned by accidental environments, and thus be liable to a large element of subjectivity hitherto unsuspected and scarcely possible to eliminate?

Here I will introduce Prof. James's speculation, to which I have already alluded. It deals with a possible alteration of the *time scale* due to a difference in rapidity of sensation on the part of a being presumably on a larger scale than ourselves.

“ We have every reason to think that creatures may possibly differ enormously in the amounts of duration which they intuitively feel, and in the fineness of the events that may fill it. Von Baer has indulged in some interesting computations of the effect of such differences in changing the aspect of Nature. Suppose we were able, within the length of a second, to note distinctly 10,000 events, instead of barely 10, as now ; if our life were then destined to hold the same number of impressions, it might be 1,000 times as short. We should live less than a month, and personally know nothing of the change of seasons. If born in winter we should believe in summer as we now believe in the heats of the carboniferous era. The motions of organic beings would be so slow to our senses as to be inferred, not seen. The sun would stand still in the sky, the moon be almost free from change, and so on. But now reverse the hypothesis, and suppose a being to get only one 1,000th part of the sensations that we get in a given time, and consequently to live 1,000 times as long. Winters and summers will be to him like quarters of an hour. Mushrooms and the swifter-growing plants will shoot into being so rapidly as to appear instantaneous creations ; annual shrubs will rise and fall from the earth like restlessly boiling water-springs ; the motions of animals will be as invisible as are to us the movements of bullets and cannon-balls ; the sun will scour through the sky like a meteor, leaving a fiery trail behind him, &c. That such imaginary cases (barring the super-human longevity) may be realised somewhere in the animal kingdom, it would be rash to deny.”—(James’s “Principles of Psychology,” Vol. i., p. 639).

And now let me specially apply this general conception of the impossibility of predicting what secrets the universe may still hold, what agencies undivined may habitually be at work around us.

Telepathy, the transmission of thought and images directly from one mind to another, without the agency of the recognised organs of sense, is a conception new and strange to science. To judge from the comparative slowness with which the accumulated evidence of our Society penetrates the scientific world, it is, I think, a conception even scientifically repulsive to many minds. We have supplied striking experimental evidence ; but few have been found to repeat our experiments. We have offered good evidence in the observation of spontaneous cases,—as apparitions at the moment of death and the like,—but this evidence has failed to impress the scientific world in the same way as evidence less careful and less coherent has often done before. Our evidence is not confronted and refuted ; it is shirked and evaded, as though there were some great *a priori* improbability which absolved the world of science from considering it. I at least see no *a priori* improbability whatever. Our alleged facts might be true in all kinds of ways without contradicting any truth already known. I will dwell now on only one possible line of explanation,—not that I see

any way of elucidating all the new phenomena I regard as genuine, but because it seems probable I may shed a light on some of those phenomena.

All the phenomena of the Universe are presumably in some way continuous ; and certain facts, plucked as it were from the very heart of Nature, are likely to be of use in our gradual discovery of facts which lie deeper still.

Let us then consider the vibrations we trace, not only in solid bodies, but in the air, and in a still more remarkable manner in the ether.

These vibrations differ in their velocity and in their frequency. That they exist, extending from one vibration to two thousand billion vibrations per second we have good evidence. That they subserve the purpose of conveying impressions from outside sources of whatever kind to living organisms may be fully recognised.

As a starting-point I will take a pendulum beating seconds in air. If I keep on doubling I get a series of steps as follows :—

Starting-point.	The seconds pendulum.		
Step		2 vibrations	per second.
1. ...			
" 2. ...	4	"	"
" 3. ...	8	"	"
" 4. ...	16	"	"
" 5. ...	32	"	"
" 6. ...	64	"	"
" 7. ...	128	"	"
" 8. ...	256	"	"
" 9. ...	512	"	"
" 10. ..	1024	"	"
" 15. ...	32768	"	"
" 20. ...	1,048576	"	"
" 25. ...	33,554432	"	"
" 30. ...	1073,741824	"	"
" 35. ...	34359,738368	"	"
" 40. ...	1,099511,627776	"	"
" 45. ...	35,184372,088832	"	"
" 50. ...	1125,899906,842624	"	"
" 55. ...	36028,707018,963968	"	"
" 56. ...	72057,594037,927936	"	"
" 57. ...	144115,188075,855872	"	"
" 58. ...	288220,376151,711744	"	"
" 59. ...	576440,752303,423488	"	"
" 60. ...	1,152881,504606,846976	"	"
" 61. ...	2,305763,009213,693952	"	"
" 62. ...	4,611526,018427,387904	"	"
" 63. ...	9,223052,036854,775808	"	"

At the fifth step from unity, at 32 vibrations per second, we reach the region where atmospheric vibration reveals itself to us as *sound*. Here we have the lowest musical note. In the next ten steps the vibrations per second rise from 32 to 32,768, and here to the average human ear the region of sound ends. But certain more highly endowed animals probably hear sounds too acute for our organs, that is, sounds which vibrate at a higher rate.

We next enter a region in which the vibrations rise rapidly, and the vibrating medium is no longer the gross atmosphere, but a highly attenuated medium, "a diviner air," called the ether. From the 16th to the 35th step the vibrations rise from 32,768 to 34359,738368 a second, such vibrations appearing to our means of observation as electrical rays.

We next reach a region extending from the 35th to the 45th step, including from 34359,738368 to 35,184372,088832 vibrations per second. This region may be considered as unknown, because we are as yet ignorant what are the functions of vibrations of the rates just mentioned. But that they have some function it is fair to suppose.

Now we approach the region of *light*, the steps extending from the 45th to between the 50th and the 51st, and the vibrations extending from 35,184372,088832 per second (heat rays) to 1875,000000,000000 per second, the highest recorded rays of the spectrum. The actual sensation of light, and therefore the vibrations which transmit visible signs, being comprised between the narrow limits of about 450,000000,000000 (red light) and 750,000000,000000 (violet light) —less than one step.

Leaving the region of visible light, we arrive at what is, for our existing senses and our means of research, another unknown region, the functions of which we are beginning to suspect. It is not unlikely that the X rays of Professor Röntgen will be found to lie between the 58th and the 61st step, having vibrations extending from 288220,576 151,711744 to 2,305763,009213,693952 per second or even higher.

In this series it will be seen there are two great gaps, or unknown regions, concerning which we must own our entire ignorance as to the part they play in the economy of creation. Further, whether any vibrations exist having a greater number per second than those classes mentioned we do not presume to decide.

But is it premature to ask in what way are vibrations connected with thought or its transmission? We might speculate that the increasing rapidity or frequency of the vibrations would accompany a rise in the importance of the functions of such vibrations. That high frequency deprives the rays of many attributes that might seem incompatible with "brain waves," is undoubted. Thus, rays about the 62nd step are so minute as to cease to be refracted, reflected or polarised ;

they pass through many so-called opaque bodies, and research begins to show that the most rapid are just those which pass most easily through dense substances. It does not require much stretch of the scientific imagination to conceive that at the 62nd or 63rd step the trammels from which rays at the 61st step were struggling to free themselves, have ceased to influence rays having so enormous a rate of vibration as 9,223052,036854,775808 per second, and that these rays pierce the densest medium with scarcely any diminution of intensity, and pass almost unrefracted and unreflected along their path with the velocity of light.

Ordinarily we communicate intelligence to each other by speech. I first call up in my own brain a picture of a scene I wish to describe, and then, by means of an orderly transmission of wave vibrations set in motion by my vocal cords through the material atmosphere, a corresponding picture is implanted in the brain of any one whose ear is capable of receiving such vibrations. If the scene I wish to impress on the brain of the recipient is of a complicated character, or if the picture of it in my own brain is not definite, the transmission will be more or less imperfect; but if I wish to get my audience to picture to themselves some very simple object, such as a triangle or a circle, the transmission of ideas will be well nigh perfect, and equally clear to the brains of both transmitter and recipient. Here we use the vibrations of the material molecules of the atmosphere to transmit intelligence from one brain to another.

In the newly-discovered Röntgen rays we are introduced to an order of vibrations of extremest minuteness as compared with the most minute waves with which we have hitherto been acquainted, and of dimensions comparable with the distances between the centres of the atoms of which the material universe is built up; and there is no reason to suppose that we have here reached the limit of frequency. Waves of this character cease to have many of the properties associated with light waves. They are produced in the same etherial medium, and are probably propagated with the same velocity as light, but here the similarity ends. They cannot be regularly reflected from polished surfaces; they have not been polarised; they are not refracted on passing from one medium to another of different density, and they penetrate considerable thicknesses of substances opaque to light with the same ease with which light passes through glass. It is also demonstrated that these rays, as generated in the vacuum tube, are not homogeneous, but consist of bundles of different wave-lengths, analogous to what would be differences of colour could we see them as light. Some pass easily through flesh, but are partially arrested by bone, while others pass with almost equal facility through bone and flesh.

It seems to me that in these rays we may have a possible mode of transmitting intelligence, which with a few reasonable postulates, may supply a key to much that is obscure in psychical research. Let it be assumed that these rays, or rays even of higher frequency, can pass into the brain and act on some nervous centre there. Let it be conceived that the brain contains a centre which uses these rays as the vocal cords use sound vibrations (both being under the command of intelligence), and sends them out, with the velocity of light, to impinge on the receiving ganglion of another brain. In this way some, at least, of the phenomena of telepathy, and the transmission of intelligence from one sensitive to another through long distances, seem to come into the domain of law, and can be grasped. A sensitive may be one who possesses the telepathic transmitting or receiving ganglion in an advanced state of development, or who, by constant practice, is rendered more sensitive to these high-frequency waves. Experience seems to show that the receiving and the transmitting ganglions are not equally developed; one may be active, while the other, like the pineal eye in man, may be only vestigial. By such a hypothesis no physical laws are violated, neither is it necessary to invoke what is commonly called the supernatural.

To this hypothesis it may be objected that brain waves, like any other waves, must obey physical laws. Therefore, transmission of thought must be easier or more certain the nearer the agent and recipient are to each other, and should die out altogether before great distances are reached. Also it can be urged that if brain waves diffuse in all directions they should affect all sensitives within their radius of action instead of impressing only one brain. The electric telegraph is not a parallel case, for there a material wire intervenes to conduct and guide the energy to its destination.

These are weighty objections, but not, I think, insurmountable. Far be it from me to say anything disrespectful of the law of inverse squares, but I have already endeavoured to show we are dealing with conditions removed from our material and limited conceptions of space, matter, form. Is it inconceivable that intense thought concentrated towards a sensitive with whom the thinker is in close sympathy may induce a telepathic chain of brain waves, along which the message of thought can go straight to its goal without loss of energy due to distance? And is it also inconceivable that our mundane ideas of space and distance may be superseded in these subtle regions of unsubstantial thought where "near" and "far" may lose their usual meaning?

I repeat that this speculation is strictly provisional. I dare to suggest it. The time may come when it will be possible to submit it to experimental tests.

I am impelled to one further reflection, dealing with the conservation of energy. We say with truth that energy is transformed but not destroyed, and that whenever we can trace the transformation we find it quantitatively exact. So far as our very rough exactness goes, this is true for inorganic matter and for mechanical forces. But it is only inferentially true for organised matter and for vital forces. We cannot express life in terms of heat or of motion. And thus it happens that just when the exact transformation of energy will be most interesting to watch, we cannot really tell whether any fresh energy has been introduced into the system or not. Let us consider this a little more closely.

It has, of course, always been realised by physicists, and has been especially pointed out by Dr. Croll, that there is a wide difference between the production of motion and the direction of it into a particular channel. The production of motion, molar or molecular, is governed by physical laws, which it is the business of the philosopher to find out and correlate. The law of the conservation of energy overrides all laws, and it is a pre-eminent canon of scientific belief that for every act done a corresponding expenditure of energy must be transformed. No work can be effected without using up a corresponding value in energy of another kind. But to us the other side of the problem is even of more importance. Granted the existence of a certain kind of molecular motion, what is it that determines its direction along one path rather than another? A weight falls to the earth through a distance of three feet. I lift it, and let it fall once more. In these movements of the weight a certain amount of energy is expended in its rise, and the same amount is liberated in its fall. But instead of letting the weight fall free, suppose I harness it to a complicated system of wheels, and, instead of letting the weight fall in a fraction of a second, I distribute its fall over twenty-four hours. No more energy is expended in raising the weight, and in its slow fall no more or less energy is developed than when it fell free; but I have made it do work of another kind. It now drives a clock, a telescope or a philosophic instrument, and does what we call useful work. The clock runs down. I lift the weight by exerting the proper amount of energy, and in this action the law of conservation of energy is strictly obeyed. But now I have the choice of either letting the weight fall free in a fraction of a second, or, constrained by the wheelwork, in twenty-four hours. I can do which I like, and whichever way I decide, no more energy is developed in the fall of the weight. I strike a match: I can use it to light a cigarette or to set fire to a house. I write a telegram: it may be simply to say I shall be late for dinner, or it may produce fluctuations on the Stock Exchange that will ruin thousands. In these cases the actual force required in striking the

match or in writing the telegram is governed by the law of conservation of energy; but the vastly more momentous part, which determines the words I use or the material I ignite, is beyond such a law. It is probable that no expenditure of energy need be used in the determination of direction one way more than another. Intelligence and free will here come into play, and these mystic forces are outside the law of conservation of energy as understood by physicists.

The whole universe as we see it is the result of molecular movement. Molecular movements strictly obey the law of conservation of energy, but what we call "law" is simply an expression of the direction along which a form of energy acts, not the form of energy itself. We may explain molecular and molar motions, and discover all the physical laws of motion, but we shall be far as ever from a solution of the vastly more important question as to what form of will and intellect is behind the motions of molecules, guiding and constraining them in definite directions along pre-determined paths. What is the determining cause in the background? What combination of will and intellect, outside our physical laws, guides the fortuitous concourse of atoms along ordered paths culminating in the material world in which we live?

In these last sentences I have intentionally used words of wide signification—have spoken of *guidance* along ordered paths. It is wisdom to be vague here, for we absolutely cannot say whether or when any diversion may be introduced into the existing system of earthly forces by an external power. We can no more be certain that this is *not* so than I can be certain in an express train that no signalman has pressed a handle to direct the train on to this or that line of rails. I may compute exactly how much coal is used per mile, so as to be able to say at any minute how many miles we have travelled, but, unless I actually see the points, I cannot tell whether they are shifted before the train passes.

An omnipotent being could rule the course of this world in such a way that none of us should discover the hidden springs of action. He need not make the Sun stand still upon Gibeon. He could do all that he wanted by the expenditure of infinitesimal diverting force upon ultra-microscopic modifications of the human germ.

In this address I have not attempted to add any item to the sound knowledge which I believe our Society is gradually amassing. I shall be content if I have helped to clear away some of those scientific stumbling-blocks, if I may so call them, which tend to prevent many of our possible coadjutors from adventuring themselves on the new illimitable road.

I see no good reason why any man of scientific mind should shut his eyes to our work, or deliberately stand aloof from it. Our *Proceedings* are of course not exactly parallel to the *Proceedings* of a Society dealing with a long-established branch of Science. In every form of research there must be a beginning. We own to much that is tentative, much that may turn out erroneous. But it is thus, and thus only, that each Science in turn takes its stand. I venture to assert that both in actual careful record of new and important facts, and in suggestiveness, our Society's work and publications will form no unworthy preface to a profounder science both of Man, of Nature, and of "Worlds not realised" than this planet has yet known.

XV.

By F. W. H. MYERS.

May 18th, 1900.

ARGUMENT.

1. Psychical Research is no longer felt to need the recommendation of names independently eminent in other branches of study.

2. Yet if recognition is to be paid primarily to actual work performed for our Research, the name of Edmund Gurney must occur as that which all would fain have honoured;—the man whose attitude towards our Research was of the loftiest, the most unselfish kind; the man who felt most strongly the sheer moral need of discovering a future life, if the cruel injustices of this life are to be conceived as compatible with a First Cause worthy of love or worship.

3. For most men the quest of immortality will answer to a stronger element of personal desire;—although such desire need not imply bias in the estimation of evidence.

4. No attachment to Christian tradition, no recognition of the need and value of high intuitions, should blind us to the fact that only on truths scientifically demonstrated can a world-philosophy or world-religion be based.

5. Yet the facts proved by Science have not thus far been adequate to satisfy the spiritual needs of mankind. May not Science discover further facts which may at any rate *prove the preamble of all religions*?

6. Such is our attempt;—for we believe that by maintaining unity of method in our search for every form of truth we have the best chance of discovering new facts of deep spiritual importance.

7. And, in fact, this line of inquiry has already pointed us to a hidden, subliminal world within us,—and through *that* world to an unseen, but responsive, spiritual world without.

8. And if the messages from that unseen world be felt at present to be inadequate to our desires, yet our faith in the coherence and intelligibility of at least the material universe should lead us to trust that clarity and dignity cannot be permanently lacking in any system of communications which may proceed from the Universe of Spirit.

9. We seem, indeed, to be awakening into a new consciousness of the living solidarity of the human race, in this world and the next, which will afford an adequate motive for utmost effort and highest hope.

10. But if we are thus to gain the advantage of scientific certainty for our deepest beliefs, we are bound in return to treat the scientific virtues as necessary to salvation.

11. The especial function of the Society for Psychical Research should be to insist upon this view, and to form an advisory centre for widespread investigation.

12. For aid in this task we can address our claim alike to the scientific and to the religious world; our wider Science, of which Religion is the subjective aspect, must come not to destroy, but to fulfil.

1. When I heard, in absence from England, that the Council of this Society had done me the honour of electing me as its President for the current year, I felt that a certain definite stage in the Society's evolution had been reached at an earlier date than I should originally have expected.

My predecessors in this Chair, I need not say, have, without exception, been men of the highest distinction. The list has included men whose leadership would confer honour on any body of men whatever;—on such bodies, for instance, as the British Association or the House of Commons. We have been grateful to these eminent persons for lending the sanction of their names to our early beginnings. And we have other names in reserve of similar distinction;—destined, I hope, some day to adorn our list of Presidents. Yet for the current year the Council have preferred to choose a man who has little claim to such a distinction, beyond the fact that he has worked for the objects which our Society seeks, from days even before the Society's formation;—and that he is determined to go on thus working so long as his faculties may allow. So have our friends chosen; and if a man may speak thus of his own election, I think that the choice is appropriate enough. For the time has come when we may fairly indicate to the world that we believe our Society can stand on its own bottom; that it carries on a branch of scientific work which, although novel and tentative, is legitimate and honourable; and therefore that we do not need to put forward in its prominent positions only those names which have been made independently illustrious by good work of other kinds performed elsewhere. As representing the principle that the plain, unadorned Psychical Researcher is just as respectable in his own way as anybody else, I am proud indeed to see my humbler

name inscribed after the names of Henry Sidgwick, Balfour Stewart, Arthur Balfour, William James, and William Crookes.

2. But here one thought must rise;—must rise for all who knew the early days of this research, but most of all for me;—Would that Edmund Gurney were standing where I stand now! For us who knew him best the years since he left us have but served to illustrate his uniqueness and to deepen his memory;—have made us feel how much of the humorous adventure, the sympathetic fellowship, the deep delight of this research of ours has with him passed irrevocably away. On the lighter side of things, we can never renew the intellectual enjoyment of those years of our small beginnings spent at his side;—watching how his flashing irony, his fearless dialectic, dealt with the attacks which then poured in from every quarter;—with the floundering platitudes of obscurantist orthodoxy, or with the smug sneers of popular science, belittling what it will not try to understand. On the graver side, we shall hardly see another example of just that attitude of mind with which Gurney entered on this research,—and which made for us so deep an element in his incomparable charm.

For in that many-chorded nature sympathy was the deepest strain;—sympathy which flowed forth indeed to those he loved in such penetrating and intimate tenderness as few mortals have had the happiness to know,—but which expended itself more widely in a profound compassion for the multiform sorrows of men. And thus, as needs must happen in those responsive minds which hear, in the Apostle's words, the whole creation groaning and travailing until now, there came to him the conviction that the question of life after death was the only test which we could really apply to the existence of a Providence;—nay, that it was no mere *articulus stantis aut cadentis Ecclesiæ*, but in sombre earnest, for all humankind, the *articulus stantis aut cadentis Dei*. Strangely enough, it was for others rather than for himself that Gurney desired this great possibility; his own mournful and stoic temper dwelt little on any personal hope. But he felt that if the First Cause has summoned into life on earth, though it were but one single man alone, miserable amid all the happy;—one single soul foredoomed to eternal protest and inescapable woe;—then that First Cause is not a God to whom a good man can offer love, or a just man worship. Alas how many theologies does this clear moral axiom shrivel as with burning fire! how many philosophies does it scatter to the winds!—philosophies of men walking delicately on wordy bridges across the grim abyss of things,—satisfied that the world is well enough, while round them wronged, degraded lives by millions are perishing in agony and for ever. It was in response to such easy optimism that Gurney's logic was the most intolerably trenchant, his sombre silence the fullest of sad scorn;—for in truth this contented blindness of sealed spirits is

in itself the vilest woe of man. *He* could not avert his eyes, and disport himself in a fool's Paradise. *He* could not weave a web of words, and stifle in a philosopher's dream. Suffer me to apply to my friend for a moment even those lofty lines in which a great poet has invoked the greatest:—

“Thou that seest universal Nature moved by universal Mind;
Thou, majestic in thy sadness at the doubtful doom of humankind.”

3. It is well that this noble figure should stand at the entrance of our research;—should show how unselfish may be the impulse which has prompted to eager labour,—eager even beyond the limit which physical powers allowed. But assuredly the mass of us Psychical Researchers have no need whatever of heroic virtue. We have enough and to spare of such motives as appeal to ordinary men. We have the stimulus of intellectual curiosity,—more richly satisfied, I think, in ours than in any other quest;—and beyond this most of us, I think, have the healthful, primary desire for the prolongation—the endless prolongation—of life and happiness. I know, indeed, that for various reasons some men of strong and high nature, as well as many men of feebler nature, do fail to feel this desire; but on the whole one must regard that form of *Welt-Schmerz* as but a passing mood of our race's immaturity,—as what physicians call a *neurosis of development*;—one must admit that usually when a man cares little for existence this is because existence cares little for him, and that it has been doubt as to the value of life and love which has made the decadence of almost all civilisations. Life is the final aim of life; the mission of the highest Teacher was that we might have it the more abundantly; and the universe strives best towards its ultimate purpose through the normal, vigorous spirit to whom to live itself is joy.

The danger, then, for our research will lie not in lack but in excess of motive; our minds may be biassed in their judgment of evidence by a deep instinctive desire. For my own part, I certainly cannot claim such impartiality as indifference might bring. From my earliest childhood—from my very first recollections—the desire for eternal life has immeasurably eclipsed for me every other wish or hope. Yet *desire* is not necessarily *bias*; and my personal history has convinced myself—though I cannot claim that it shall convince others also—that my wishes do not strongly warp my judgment,—nay, that sometimes the very keenness of personal anxiety may make one afraid to believe, as readily as other men, that which one most longs for.

For when, after deriving much happiness from Christian faith, I felt myself forced by growing knowledge to recognise that the evidence for that culminant instance of spirit return was not adequate, as standing alone, to justify conviction, I did honestly surrender that great joy;

although its loss was more grievous to me than anything else which has happened to me in life.

Then with little hope—nay, almost with reluctant scorn—but with the feeling that no last and least chance of the great discovery should be thrown aside, I turned to such poor efforts at psychical research as were at that time possible; and now it is only after thirty years of such study as I have been able to give that I say to myself at last, *Habes tota quod mente petisti*—"Thou hast what thine whole heart desired";—that I recognise that for me this fresh evidence,—while raising that great historic incident of the Resurrection into new credibility,—has also filled me with a sense of insight and of thankfulness such as even my first ardent Christianity did not bestow.

Yet if I thus find the happiness which sprang from far-reaching Tradition and Intuition surpassed by the happiness which springs from a narrower, but a more stable range of demonstrated fact, I nevertheless speak in no spirit of reaction or of ingratitude towards traditions and intuitions which must yet, for many a century, be potent for the salvation of men. I by no means take for granted that any scientific inquiry, any induction from empirical facts, can afford to man his only or his deepest insight into the meaning of the Universe. I have no controversy with those who say that contemplation, revelation, ecstasy, may carry deep into certain hearts an even profounder truth. I recognise also that our Science is a conventional structure; that it rests on assumptions which we cannot fully prove; or which even indicate, by their apparent inconsistency, that they can be at best but narrow aspects of some underlying law imperfectly discerned. All this we may all admit; just as we admit the inadequacy, the conventionality, of human speech itself. Speech cannot match the meaning which looks in an hour of emotion from the eyes of a friend. But what we learn from that gaze is indefinable and incommunicable. Our race needed the spoken and written word, with all its baldness, if they were to understand each other and to grow to be men. So with Science as opposed to Intuition. Science forms a language common to all mankind; she can explain herself when she is misunderstood and right herself when she goes wrong; nor has humanity yet found, at any rate, since that great wedding between Reason and Experience, which immortalises the name of Galileo,—that the methods of Science, intelligently and honestly followed, have led us in the end astray.

It is only in the region of inquiry into a spiritual world—I mean a world of immaterial and yet individual realities—that these truisms are still in danger of being taken for paradoxes. At once the intimate interest and the extreme obscurity of that investigation have long prevented it from being kept fully and fairly in that scientific field

where man's attempts at all other knowledge are now collected and appraised. In their rude beginnings, no doubt, Religion and Science were indistinguishable. The savage observed such scanty facts as he could get at, and tried to shape both his practical and his spiritual life upon that observation. But his need of a theory of the unseen world (to put his vague hopes and terrors into our own phraseology) went far beyond what his scraps of experience could teach him. "What must I do to be saved?" was a question to which he could not find, yet would not wait for an answer. He fell into grotesque fancies, which his experience did not really support; and the divorce of Religion from Science at once began.

The spiritual need which thus acted on the savage continues to act on the civilised man. He too is impelled to build his faith on grounds outside his sphere of observation, to enlarge the safe, general, and permanent formula for religion in various more or less unsafe, specialised, and transitory ways. For it is—may one not say?—a safe, general, and permanent formula for religion if we regard it as man's normal subjective response to the sum of known cosmic phenomena taken as an intelligible whole. Under the title of Natural Religion this forms at least an element in all the higher forms of faith. Nevertheless it is felt to be inadequate; because the observable phenomena of the Universe, so far at least as they have yet been observed, have not been such as to evoke (save in some few minds) the full hope, the full devotion which our developed nature yearns to feel. To live by Natural Religion alone has been like living on turnips in the field. Most men demand their spiritual nutriment in a more assimilable form. The philosophical or the poetical contemplation of Nature has not satisfied them in the past; nor can they hope that the scientific contemplation of Nature will satisfy them any better now. They turn aside from the ambiguous pageant, the circumspect scrutiny; they specialise the name of Religion upon some clear, swift, extra-scientific knowledge as to the dealings of unseen Powers with mankind.

On such knowledge, or supposed knowledge, the peoples of East and West have stayed in many fashions their soul's desire; but, nevertheless, we all know too well that even yet there is no spiritual food attainable in the precise condition in which it will meet all healthy needs. We are all forced to feel that in the present divided and unstable condition of beliefs there is plausibility in the Agnostic's appeal to us to halt and mark time; in his insistence that we have not really evidence, up to modern standards, which can support any definite creed in matters remote from ordinary methods of proof. Some men, indeed, have ventured explicitly to reply that Christian Faith need not be founded on the same kind of demonstration as Science; that Tradition and Intuition can well supply her outward form and her

inward glow. Urged among those who have much of consecrated tradition, of noble intuition in common, this high claim may seem convincing as the gaze of a friend. But it has the inevitable weakness already indicated. Introduce other persons of different race but equally sincere, the Buddhist, the Parsee, the Jew—nay, the saint of science, like Darwin—and you can meet these men no longer on the ground of Christian Tradition or Intuition—you can meet them on the ground of Science alone. Thus even among spiritually-minded men we seem forced back into the view that Science can be the only world-philosophy or world-religion;—the only synthesis of the Universe which, however imperfect, is believed in *semper, ubique, et ab omnibus*, by all who can understand it.

5. This conclusion, however, as already implied, at present satisfies nobody. The Christian says that it is mere mockery to pretend that Science can be the base of Religion; for it tells us nothing of the spiritual world. "Naturally," replies the Agnostic, hardening into Materialism; "since there is no spiritual world of which to tell." "The Universe," cried Clifford triumphantly, "is made of ether and atoms, and there is no room for ghosts."

So soon, however, as the man of science takes this tone—so soon as he passes, so to say, from Huxley to Clifford—he loses his strong position, the Agnostic's *raison d'être*. Clifford had not really turned over his atoms thoroughly enough to make sure that no ghost was hidden among them. As indisputably as any worshipper of Mumbo-Jumbo had that eager truth-lover framed an emotional synthesis which outran his Science.

Is, then, the passivity of pure Agnosticism the attitude with which we ought to be content? *Ignoramus et ignorabimus*—should this be the single clause of our creed? Surely that were too tame a surrender to the Sphinx and her riddle; which, in the old story, turned out after all to be rather easy to guess. Why should we not simply try to find out new facts here, as we have found out new facts everywhere else where we have looked for them? Just here we have not looked for them yet, because neither the priests of our religions nor their critics have till now been disposed for the quest. The priests have thought it safest to defend their own traditions, their own intuitions, without going afield in search of independent evidence of a spiritual world. Their assailants have kept their powder and shot for the orthodox ramparts, ignoring any isolated strongholds which formed no part of the main line of defence.

This search for new facts is precisely what our Society undertakes. Starting from various standpoints, we endeavour to carry the newer, the intellectual virtues into regions where dispassionate tranquillity has seldom yet been known. As compared with the claims of Theologians,

we set before ourselves a humbler, yet a difficult task. We do not seek to shape the clauses of the great Act of Faith, but merely to prove its preamble. *To prove the preamble of all religions*; to be able to say to theologian or to philosopher: "Thus and thus we demonstrate that a spiritual world exists—a world of independent and abiding realities, not a mere 'epiphenomenon' or transitory effect of the material world—a world of things, concrete and living, not a mere system of abstract ideas;—now, therefore, reason on that world or feel towards it as you will." This would indeed, in my view, be the weightiest service which any research could render to the deep disquiet of our time;—nay, to the *desiderium orbis catholici*, the world-old and world-wide desire.

6. First, then, we adopt the ancient belief—implied in all monotheistic religion, and conspicuously confirmed by the progress of modern science—that the world as a whole, spiritual and material together, has in some way a systematic unity; and on this we base the novel presumption that there should be a unity of method in the investigation of all fact. We hold therefore that the attitude, the habits of mind, the methods, by aid of which physical science has grown deep and wide, should be applied also to the spiritual world. We endeavour to approach the problems of that world by careful collection, scrutiny, testing, of particular facts; and we account no unexplained fact too trivial for our attention. Seeking knowledge before edification, we aim not at what we should most like to learn, but at what we have the best chance of learning; we dabble among beggarly elements; we begin at the beginning.

Into this frame of mind the long habit of our race in matters religious has made it difficult fully to enter. I have found it helpful to imagine what would be the procedure of some extraneous inquirer into the nature and fate of men—some inquirer exempt from their hopes, their fears, their presuppositions.

Let us suppose, then, that "a spectator of all time and all existence," a kind of minor Cosmotheorus, as Plato might call him, were speculating from the standpoint of this planet, as to what was likely to be the true position of the human race in the scheme of the Universe. Such an observer would be compelled to start from the facts before him. He would begin his investigation, therefore, not with God but with man. He would analyse the faculties of which he found man possessed, and would infer in what environment they were designed to operate—of what system, that is to say, of cosmic laws, expressing a special modification of the ultimate energy, the energy contained in the human race formed an integral element. His first discovery would be that the obvious material environment, which is all that most men know, does not exhaust the faculties nor cover the phenomena of human life.

Most of man's senses, indeed, he could explain as concerned solely with matter. Sight he could not thus explain; and the study of light would lead him to discover the etherial environment—a system of laws, that is to say, which, while fundamentally continuous with the laws of matter, does yet supply a new conception of the Cosmos, at once more generalised and more profound. But still the central problem of man's being would remain unsolved. Life and thought could not be referred to the working either of aggregated molecules or of etherial undulations. To explain Life by these two environments would be as impossible as it had been to explain Light by the material environment alone. Might there not be yet another environment—*metetherial*, spiritual, what you will? Was there any way of reducing this vast and vague problem of Life to manageable definiteness? Were there measurable traces of human faculty working in apparent independence of material or etherial law? Such traces, if he sought long enough, I maintain that he would assuredly find. He would find (as we have found) instances of *telæsthesia*, or perception beyond the sensory range; instances of telepathy, or direct communication from mind to mind;—nay, telepathic messages from the so-called dead—signs and apparitions by which minds discarnate impressed themselves upon minds still robed in flesh. How far the ether, in some of its unknown properties, may be concerned in these operations, our Cosmotheorus might be better able to guess than we. To him, perhaps, no environment would seem discontinuous with any other environment. But, at any rate, here would be definite traces of a new environment of Life and Thought; traces of the mutual action of minds, embodied and unembodied, in apparent independence of matter.

I must not here follow our imagined inquirer further; but surely we leave him launched upon a series of observations and experiments which have no inherent flaw in their basis, and no assignable limit to their scope.

7. I have dwelt at some length upon this line of argument, because I think that, in some form or other, it is our duty to have it always forthcoming, our duty to set it before the world in varying expression, until our age is really convinced that this great branch of knowledge, which deals with things unseen, can form no exception to those rules by which experience shows us that all valid knowledge has hitherto been won. So confident, indeed, do I feel in this gradual but certain method of approach—in this open, unfrequented way—that even if it had thus far failed to lead us to any discovery, I should feel bound to pursue it still. But it has not failed. This persistent analysis of unexplored faculty has revealed to us already far more than I, for one, had ever dared to hope. I may surely say with no more than the licensed exaggeration of epigram, that our method has revealed to us

a hidden world within us, and that this hidden world within us has revealed to us an invisible world without.

Within each man, I say, there is a world of thought and of perception which lies outside the margin, beneath the threshold, deeper than the surface-tension of his conscious being.

“ We were the first that ever burst
Into that silent sea.”

We at any rate were among the earliest to attempt to explore and map out that strange, submerged region—half lumber-room and half king’s-treasury—where amid things outworn lie things unborn, and possibilities of our unimaginable Future lurk among the exuviae of our immemorable Past. And yet in this confusion all is implicitly congruous and consecutive; each trace of faculty, whether it lie behind our actual stage of progress or before, belongs to a series of developments of personality whose terms have no assignable limit;—a series which carries us onward without a break, from dream and hallucination and bewilderment, up to the utterances of discarnate spirits and the visions of ecstasy.

For, in truth, from the mind’s inward vision we may learn more than from the seeing of the eye; from inward audition more than from the hearing of the ear. The *automatisms* which steal their way upward from hidden depths to manifestation amid man’s sensory perceptions and voluntary acts are found on analysis to contain elements of knowledge not attainable in any normal fashion. Such knowledge is shown in telepathic messages between living men, and in apparitions which tell of men dying, and in evidential messages from men whom we call dead. All this—in *Phantasms of the Living* and in fourteen volumes of *Proceedings*—I claim that we have adequately shown. And of late years we have advanced and consolidated these fragmentary and fugitive indications of the spirit’s survival by certain records of trance-phenomena and spirit-possession;—records as yet inchoate and imperfect, yet which must needs be faced and dealt with by all serious men.

8. But here I must needs stay a moment to prevent any misunderstanding. Throughout this address, of course, I am speaking for myself alone. I am not giving utterance to any collective view, but to my own view of the general drift and result of our collective action. But at this point I know that most even of those who may have gone with me thus far will,—and quite justifiably,—suspend their adhesion. Few even of my own colleagues have had full reason to believe that matter of real importance has yet been received from behind the veil, and in the world at large the general impression that even those messages which look evidentially as though they had come from discarnate spirits are yet practically futile and incoherent is strongly and naturally

operative in checking public interest in what seems so strangely baffling a research.

I will not now protest, as I might protest, against the accuracy of this general impression of the actual facts. Accepting it for the sake of argument, I will confine myself to one simple line of *à priori* reasoning, which seems to me sufficient to show what, in the supposed case, is our plain, scientific duty. I say, then, that if once it be admitted,—as we are now assuming, for argument's sake, that it is admitted—that it is evidentially probable that some of these messages do indeed, in however indirect or confused a manner, emanate from an unseen world,—then it is a blasphemy against the faith of Science to doubt that they must ultimately prove to be of serious, of supreme importance.

The faith to which Science is sworn is a faith in the uniformity, the coherence, the intelligibility of, at any rate, the material universe. Science herself is but the practical development of this mighty postulate. And if any phenomenon on which she chances on her onward way seems arbitrary, or incoherent, or unintelligible, she does not therefore suppose that she has come upon an unravelled end in the texture of things; but rather takes for granted that a rational answer to the new problem must somewhere exist,—an answer which will be all the more instructive because it will involve facts of which that first question must have failed to take due account.

This faith in the uniformity of material Nature formulates itself in two great dogmas—for such they are;—the dogma of the Conservation of Matter, and the dogma of the Conservation of Energy. Of the Conservation of Matter, within earthly limits, we are fairly well assured; but of the Conservation of Energy the proof is far less complete, simply because Energy is a conception which does not belong to the material world alone. Life is to us the most important of all forms of activity;—of Energy, I would say,—except that we cannot transform other energies into Life, nor measure in foot-pounds that directive force which has changed the face of the world. Life comes we know not whence; it vanishes we know not whither; it is interlocked with a moving system vaster than that we know. To grasp the whole of its manifestation we should have to follow it into an unseen world. Yet scientific faith bids us believe that there, too, there is continuity; and that the past and the future of that force which we discern for a moment are still subject to universal Law.

Believing, then, that the whole Cosmos is such as to satisfy the claims of human Reason, we are irresistibly led to ask whether it satisfies other claims of our nature which are as imperious as Reason itself. Infinite Intelligence would see the Cosmos as infinitely intelligent; but would infinite Goodness also see it as infinitely good?

We know too well the standing difficulties in the way of such an assumption. They are that which we call Evil, and that which we see as Death. Now as to Evil,—which for us here and now seems so ineffaceable a blot on the idea of Omnipotence,—we can perhaps nevertheless just conceive that for the Cosmotheorus all these defects and incompatibilities of human impulse and sensibility may seem as relatively infinitesimal in the unimaginable Sum of Things, as for us are the whirl and clashing of molecules in the dewdrop, which cannot mar for our vision its crystalline calm.

But *death*, as it presents itself to us, cannot be similarly explained away. If it be really, as it seems, a sheer truncation of moral progress, absolute alike for the individual and for the race,—then any human conception of a moral universe must simply be given up. We are shut in land-locked pools; why speak to us of an infinite sea?

What, then, should be the impulse, what the faith of Science, if she finds even the least reason to suspect that this truncation is in fact illusory; that on the moral side also there is conservation and persistence;—conservation not only of such ether-vortices as we assume to underlie our visible matter, but of the spiritual systems or syntheses which underlie the personalities of men?—persistence not only of crude transformable energies, but of those specific non-transformable energies which inform a Plato or a Newton, and which seem the only commensurate object towards which the whole process of evolution can tend? Surely in such a case, whatever dreaminess or confusion may mark the opening of intercourse with worlds indefinitely remote, Science should summon all her fundamental trust in the coherence, the intelligibility of things, to assure her that the dreaminess must pass and the confusion clear, and that the veriest rudiment of communication between world and world bears yet the promise of completing and consummating her own mighty dogmas,—of effecting a unification of the universe such as she has never ventured to hope till now? What are our petty human preconceptions worth in such a case as this? If it was absurd to refuse to listen to Kepler, because he bade the planets move in no perfect circles, but in undignified ellipses;—because he hastened and slackened from hour to hour what ought to be a heavenly body's ideal and unwavering speed;—is it not absurder still to refuse to listen to these voices from afar, because they come stammering and wandering as in a dream confusedly, instead of with a trumpet's call? because spirits that bend nigh to earth may undergo, perhaps, an earthly bewilderment, and suffer unknown limitations, and half remember us and half forget?

Nay! in the end it is not for us to choose;—we needs must join in this communion with what grace we may. We cannot, if we would,

transform ourselves into the mere cynical spectators of an irrational universe. We are part and parcel of these incredible phenomena ; our own souls shall soon be feeling the same attraction, the same hesitancy upon the further shore.

“I am the doubter and the doubt,
And I the song the Brahman sings.”

Let us do what we can, then, to dignify the situation. Let us try, then, whether a more serious response on our part may enable the senders of the messages to speak with clearer voice. To whose care indeed has such response been hitherto for the most part left ? May not the instances where adequate precautions have been taken, adequate record made, be counted on the fingers of one hand ? Might not our unseen correspondents turn the tables on us when we complain of their incapacity, and ask whether it was worth while to do better for the “domestic muffs” of Mme. Blavatsky’s far-famed *cénacle*, or for the sitters at the “materialisation séances” of the “Vampires of Onset” ?

Assuredly we modern men have taken, in other quarters, more trouble than here is needed, with far less hope of reward. What has given its worth to the study of comparative religions except our steady effort to comprehend and to co-ordinate such childish and stammering utterances as have marked the rise in one nation after another of those spiritual needs and conceptions which make in the end the truest unity of the race of man ? What should we have learnt from the Vedas, from the Book of the Dead—nay, from the Christian records themselves—had we approached those sacred texts in the spirit alternately of Simple Simon and of Voltaire ?

9. The time, I think, is ripe for a generalisation wider than any which those ancient books contain. For just as a kind of spiritual fusion of Europe under Roman sway prepared the way for Christianity to become the European religion, so now also it seems to me that a growing conception of the unity, the solidarity, of the human race is preparing the way for a world-religion which expresses and rests upon that solidarity ;—which conceives it in a fuller, more vital fashion than either Positivist or Catholic had ever dreamed. For the new conception is neither of benefactors dead and done for, inspiring us automatically from their dates in an almanac, nor of shadowy saints imagined to intercede for us at Tribunals more shadowy still ;—but rather of a human unity,—close-linked beneath an unknown Sway,—wherein every man who hath been or now is makes a living element ;—inalienably incorporate, and imperishably co-operant, and joint-inheritor of one infinite Hope.

Of course, I am not here supposing that any human gaze can pierce

deeply into the world unseen. Such communion as we may hold with spirits in any degree comparable with ourselves must needs be on a level far beneath the lowest of "Thrones, Dominations, Princedoms, Virtues, Powers";—nay, must be in the very vestibule and antechamber of the outermost of the courts of Heaven. These souls of ours are but *infantum animæ flentes in limine primo*;—the first and humblest conscious links in a wonderful order;—trembling still and half-bewildered at a future vaster than we know. I do not presume to forecast what we may come in time to learn; I only say that for the present hour there will be enough of motive to urge us to utmost effort to rise in the scale of being, if we can once be certain that such noble spirits as we have known by earthly intercourse or earthly record do still concern themselves with our progress, and still from their higher vantage-ground call to us that all is well.

Men objected of old to Copernicus that if our earth really swept round the sun in so vast an orbit, there should be an apparent displacement—a parallax—in the position of the fixed stars. Such parallax was long sought in vain; till at last advancing skill detected it in some few stars nearer than the rest; and our relation to these near luminaries proved to us our veritable voyage through the star-strewn deep. Perhaps in the spiritual world as well we have strained our gaze too exclusively on luminaries that are beyond the parallactic limit; and eyes turned steadily on some nearer brightness may teach us at last our kinship and community in the firmament of souls.

Not, then, with tears and lamentations should we think of the blessed dead. Rather we should rejoice with them in their enfranchisement, and know that they are still minded to keep us as sharers in their joy. It is they, not we, who are working now; they are more ready to hear than we to pray; they guide us as with a cloudy pillar, but it is kindling into steadfast fire.

Nay, it may be that our response, our devotion, is a needful element in their ascending joy; and God may have provided some better thing for us, that they without us should not be made perfect;—*ut non sine nobis consummarentur*.

10. To most of my hearers I doubt not that this forecast of a coming co-operation between incarnate and discarnate spirits will have seemed speculative and premature. My defence is that I believe that upon our own attitude towards these nascent communications their progress and development depend, so that we cannot too soon direct serious attention to the high responsibilities opening on our view. And now yet another practical question is ready, I think, for immediate discussion. All great changes in speculative belief must modify in some way man's immediate duty. In what way must our idea of duty be modified, be expanded, if a religion is offered to us which no longer

depends on tradition and intuition only, but on reason also and on experiment; which is not locked away in an emotional compartment of our being, nor adapted to the genius of special races alone, but is œcumenical as Science is œcumenical, is evolutionary as Science is evolutionary, and rests on a permanent and provable relationship of the whole spiritual to the whole material world?

No full answer to such a question can as yet be attempted or divined. But one point is clear;—and on that point it is already urgently necessary to insist. We must maintain, in old theological language, that *the intellectual virtues have now become necessary to salvation*. Curiosity, candour, care;—these are the intellectual virtues;—disinterested curiosity, unselfish candour, unremitting care. These virtues have grown up outside the ecclesiastical pale; Science, not Religion, has fostered them;—nay, Religion has held them scarcely consistent with that pious spirit which hopes to learn by humility and obedience the secrets of an unseen world. Here surely our new ideals suggest not opposition but fusion. To us as truly as to monk or anchorite the spiritual world is an intimate, an interpenetrating reality. But its very reality suggests the need of analysis, the risk of misinterpretation; the very fact that we have outgrown our sacerdotal swaddling-clothes bids us learn to walk warily among pitfalls which call for all the precautions which systematic reason can devise.

Upon a new scheme of beliefs, attractive to the popular mind as the scheme which I prefigure, a swarm of follies and credulities must inevitably perch and settle. Yet let those who mock at the weaknesses of “modern Spiritualism” ask themselves to what extent either orthodox religion or official science has been at pains to guard the popular mind against losing balance upon contact with new facts, profoundly but obscurely significant? Have the people’s religious instructors trained them to investigate for themselves? Have their scientific instructors condescended to investigate for them? Who should teach them to apply to their “inspirational speakers” any test more searching than they have been accustomed to apply to the sermons of priest or bishop? What scientific manual has told them enough of the hidden powers within them to prevent them from ascribing to spiritual agency whatever mental action their ordinary consciousness may fail to recognise as its own?

The rank and file of Spiritists have simply transferred to certain new dogmas—for most of which they at least have some comprehensible evidence—the uncritical faith which they were actually commended for bestowing on certain old dogmas,—for many of which the evidence was at least beyond their comprehension. In such a case ridicule is no remedy. The remedy lies, as I have said, in inculcating the intellectual virtues;—in teaching the mass of mankind that the maxims of

the modern *savant* are at least as necessary to salvation as the maxims of the mediæval saint.

11. Now here, I take it, lies the special, the characteristic duty of the Society for Psychical Research. It is a duty far wider than the mere exposure of fraud; far wider than the mere production of specimens of patient and intelligent investigation. Our duty is not the founding of a new sect, nor even the establishment of a new science, but is rather the expansion of Science herself until she can satisfy those questions which the human heart will rightly ask, but to which Religion alone has thus far attempted an answer. Or rather, this is the duty, the mission, of the coming century's leaders of spiritual thought. Our own more special duty is to offer through an age of transition more momentous than mankind has ever known, that help in steadying and stimulating psychical research all over the world which our collective experience should enable us richly to bestow. Such function *ought*, I say, to be ours indeed. We alone have taken the first steps to deserve it. I see our original programme completely justified. I see our *raison d'être* indisputably established. I see all things coming to pass as we foresaw. What I do *not* see, alas! is an energy and capacity of our own, sufficient for our widening duty;—enough of labourers for the vineyard so ripe for harvest. Speaking, if so I may, for the remnant of that small company of labourers of the first hour of the day, I must confess that our strength, at least, cannot suffice for the expanding task;—nay, could not so suffice, even if Edmund Gurney were with us still;—*non, si ipse meus nunc adforet Hector*. Other workers, good men and true, have joined themselves to us;—but we have need of many more. We invite them from each department of science, from every school of thought. With equal confidence we appeal for co-operation to *savant* and to saint.

12. To the *savant* we point out that we are not trying to pick holes in the order of Nature, but rather, by the scrutiny of residual phenomena, to get nearer to the origin and operation of Nature's central mystery of Life. Men who realise that the etherial environment was discovered yesterday need not deem it impossible that a metetherial environment—yet another omnipresent system of cosmic law—should be discovered to-morrow. The only valid *à priori* presumption in the matter is the presumption that the Universe is infinite in an infinite number of ways.

To the Christian we can speak with a still more direct appeal. "You believe," I would say, "that a spiritual world exists, and that it acted on the material world two thousand years ago. Surely it is so acting still! Nay, you believe that it *is* so acting still; for you believe that prayer is heard and answered. To believe that prayer is heard is to believe in telepathy—in the direct influence of mind on mind. To

believe that prayer is answered is to believe that unembodied spirit does actually modify (even if not storm-cloud or plague-germ) at least the minds, and therefore the brains, of living men. From that belief the most advanced 'psychical' theories are easy corollaries. You may reply, indeed, that the Church, or the Bible, has told men all of the unseen world that they need to know, and that whatsoever is more than this cometh of evil. What say you to this argument when it is retorted on you by Omar with his Koran?"

But let us cease to speak as though the infinite Unseen World were a mere preserve or battle-ground of theologies. If every dogma ever promulgated from the Vatican were literal truth, Science would still affirm that scarcely anything of that world was known. If Religion be more than "the guess of a worm in the dust, and the shadow of its desire," it must be (I say once more) the spirit's normal answer to objective fact. The Cosmos is what it is, and Revelation can do no more than reveal it. Holiness itself must be the reflection of a reality behind the veil. If this be so, then Science has come not to destroy but to fulfil; Religion must needs evolve into Knowledge; for Religion can in no age admit an aim narrower than the prayer of Cleanthes,—the willing response of the soul to all she knows of cosmic law.

Out of the long Stone Age our race is awakening into consciousness of itself. We stand in the dawn of history. Behind us lies a vast and unrecorded waste—the mighty struggle *humanam condere gentem*. Since the times of that ignorance we have not yet gone far; a few thousand years, a few hundred thinkers, have barely started the human mind upon the great æons of its onward way. It is not yet the hour to sit down in our studies and try to eke out Tradition with Intuition—as one might be forced to do in a planet's senility, by the glimmer of a fading sun. *Daphni, quid antiquos signorum suspicis ortus?* The traditions, the intuitions of our race are themselves in their infancy; and before we abandon ourselves to brooding over them let us at least first try the upshot of a systematic search for actual facts. For what should hinder? If our inquiry lead us first through a jungle of fraud and folly, need that alarm us? As well might Columbus have yielded to the sailors' panic, when he was entangled in the Sargasso Sea. If our first clear facts about the Unseen World seem small and trivial, should that deter us from the quest? As well might Columbus have sailed home again, with America in the offing, on the ground that it was not worth while to discover a continent which manifested itself only by dead logs.

One final word to each main division of our critics;—to those first who have been disappointed so often that they refuse to listen to any further promise of news from the Unseen;—and then to those who,

relying on some grander revelation,—whether received from without them or from within,—disdain our slow collective process and comminuted fragments of truth. I would remind the Agnostic that a pike was once kept in the same tank with a perch. There was at first a sheet of glass between them; and the pike bruised his nose so often in snapping at the perch that in time he gave up that endeavour—as the Agnostic his endeavour after proof of a spiritual world—with a sigh or a sneer. Then silently the transparent screen was removed; but now the pike was so convinced that his prey was unreachable that—like the Agnostic in presence of our new evidence—he continued simply to let the perch alone.

For those other men I will resort to a bold metonymy, and will speak of that great incurrent truth to which each man severally holds under the figure of the great stone at Ephesus which fell down from Jupiter. The faithful who proclaimed that wondrous fall were essentially in the right,—were far more in the right than the freethinkers who derided it. But whence and why that stone had truly fallen,—how vast the significance of that cosmic trajectory and rushing flame,—this could be known only when humble labourers had catalogued many a lesser congener of the mighty mass; and had gathered the meteoric dust from the ocean's floor; and had learnt that no field of heaven had been found so desolate as not to carry still the impress of ultimate energy and universal law.

XVI.

BY SIR OLIVER LODGE, F.R.S.

March 8th, 1901.

IN MEMORY OF F. W. H. MYERS.

Ἀρνύμενος ἦν τε ψυχὴν καὶ νόστον ἐταίρων.

WHO would have thought a year ago, when our Secretary and joint Founder at length consented to be elected President, that we should so soon be lamenting his decease ?

When Henry Sidgwick died, the Society was orphaned, and now it is left desolate. Of the original chief founders, Professor Barrett alone remains; for Mr. Podmore, the only other member of the first Council still remaining on it, was not one of the actual founders of the Society. Neither the wisdom of Sidgwick nor the energy and power of Myers can by any means be replaced. Our loss is certain, but the blow must not be paralysing. Rather it must stimulate those that remain to fresh exertions, must band us together determined that a group of workers called together for a pioneering work, for the founding and handing on to posterity of a new science, must not be permitted to disband and scatter till their work is done. That work will not be done in our lifetime; it must continue with what energy and wisdom we can muster, and we must be faithful to the noble leaders who summoned us together and laid this burden to our charge.

I, unworthy, am called to this Chair. I would for every reason that it could have been postponed; but it is the wish of your Council; I am told that it was the wish of Myers, and I regard it as a duty from which I must not shrink.

The last communication which my predecessor made was in memory of Henry Sidgwick: my own first communication must be in memory of Frederic Myers.

To how many was he really known? I wonder. Known in a sense he was to all, except the unlettered and the ignorant. Known in reality he was to very few. But to the few who were privileged to know him, his is a precious memory: a memory which will not decay with the passing of the years. I was honoured with his intimate friendship. I esteem it one of the honours of my life.

To me, though not to me alone, falls the duty of doing some justice to his memory. I would that I might be inspired for the task.

I was not one of those who knew him as a youth, and my acquaintance with him ripened gradually. Our paths in life were wide apart, and our powers very different: our powers, but not our tastes. He could instruct me in literature and most other things, I could instruct him in science; he was the greedier learner of the two. I never knew a man more receptive, nor one with whom it was a greater pleasure to talk. His grasp of science was profound: I do not hesitate to say it, though many who do not really know him will fail to realise that this was possible; nor was he fully conscious of it himself. Even into some of the more technical details, when they were properly presented, he could and did enter, and his mind was in so prepared a state that any fact once sown in it began promptly to take root and bud. It was not a detailed knowledge of science that he possessed, of course, but it was a grasp, a philosophic grasp, of the meaning and bearing of it all, not unlike the accurately comprehending grasp of Tennyson; and again and again in his writings in our *Proceedings* do we find the facts which his mind had thus from many sources absorbed utilised for the purpose of telling and brilliant illustrations, and made to contribute each its quota to his Cosmic scheme.

For that is what he was really doing, all through this last quarter of a century: he was laying the foundation for a cosmic philosophy, a scheme of existence as large and comprehensive and well founded as any that have appeared.

Do I mean that he achieved such a structure? I do not. A philosophy of that kind is not to be constructed by the labour of one man, however brilliant; and Myers laboured almost solely on the psychological side. He would be the first to deprecate any exaggeration of what he has done, but he himself would have admitted this,—that he strenuously and conscientiously sought facts,

and sought to construct his cosmic foundation by their aid and in their light, and not in the dark gropings of his own unaided intelligence. A wilderness of facts must be known to all philosophers; the true philosopher is he who recognises their underlying principle and sees the unity running through them all.

This unity among the more obscure mental processes Myers saw, as it seems to me, more clearly than any other psychologist; but what right have I to speak on psychological problems? I admit that I have no right—I only crave indulgence to show the thing as it appears to me. For authoritative psychology we must hear Professor William James. He will contribute a memoir, but as I write now I have heard no word from William James. I express only what has long been in my mind.

To me it has seemed that most philosophers suffer from a dearth of facts. In the past necessarily so, for the scientific exploration of the physical universe is, as it were, a thing of yesterday. Our cosmic outlook is very different from that of the ancients, is different even from that of philosophers of the middle of the century, before the spectroscope, before Darwin and Wallace, before many discoveries connected with less familiar household words than these: in the matter of physical science alone the most recent philosopher must needs have some advantage. But this is a small item in his total outfit, mental phenomena must contribute the larger part of that; and the facts of the mind have been open—it is generally assumed—from all antiquity. This is in great degree true, and philosophers have always recognised and made use of these facts, especially those of the mind in its normal state. Yet in modern science we realise that to understand a thing thoroughly it must be observed not only in its normal state but under all the conditions into which it can be thrown by experiment, every variation being studied and laid under contribution to the general understanding of the whole.

And, I ask, did any philosopher ever know the facts of the mind in health and in disease more profoundly, with more detailed and intimate knowledge, drawn from personal inquiry, and from the testimony of all the savants of Europe, than did Frederic Myers? He laid under contribution every abnormal condition studied in the Salpêtrière, in hypnotic trance, in delirium, every state of the mind in placidity and in excitement. He was well acquainted with the

curious facts of multiple personality, of clairvoyant vision, of hallucinations, automatisms, self-suggestion, of dreams, and of the waking visions of genius.

It will be said that Hegel, and to some extent Kant also, as well as other philosophers, recognised some ultra-normal mental manifestations, and allowed a place for clairvoyance in their scheme. All honour to those great men for doing so, in advance of the science of their time; but how could they know all that we know to-day? Fifty years ago the facts even of hypnotism were not by orthodox science accepted; such studies as were made, were made almost surreptitiously, here and there, by some truth-seeker clear-sighted enough to outstep the fashion of his time and look at things with his own eyes. But only with difficulty could he publish his observations, and doubtless many were lost for fear of ridicule and the contempt of his professional brethren.

But now it is different: not so different as it ought to be, even yet; but facts previously considered occult are now investigated and recorded and published in every country of Europe. The men who observe them are too busy to unify them; they each contribute their portion, but they do not grasp the whole: the grasping of the whole is the function of a philosopher. I assert that Myers was that philosopher.

Do I then in my own mind place him on a pedestal by the side of Plato and Kant? God forbid! I am not one to juggle with great names and apportion merit to the sages of mankind. Myers' may not be a name which will sound down the ages as an achiever and builder of a system of truth; but I do claim for him that as an earnest pioneer and industrious worker and clear-visioned student, he has laid a foundation, perhaps not even a foundation but a corner-stone, on ground more solid than has ever been available before; and I hold that the great quantity of knowledge now open to any industrious truth-seeker gives a man of modest merit and of self-distrustful powers, a lever, a fulcrum, more substantial than those by which the great men of antiquity and of the middle ages were constrained to accomplish their mighty deeds.

Myers has left behind two unpublished volumes on *Human Personality*, has left them, I believe, in charge of Dr. Hodgson—has left them, alas, not finished, not finally finished; how nearly finished

I do not know. I saw fractions of them some time ago as they left his pen, and to me they seemed likely to be an epoch-making work.

They are doubtless finished enough: more might have been done, they might have been better ordered, more highly polished, more neatly dove-tailed, had he lived; but they represent for all time his real life work, that for which he was willing to live laborious days; they represent what he genuinely conceived to be a message of moment to humanity: they are his legacy to posterity; and in the light of the facts contained in them he was willing and even eager to die.

The termination of his life, which took place at Rome in presence of his family, was physically painful owing to severe attacks of difficult breathing which constantly preceded sleep; but his bearing under it all was so patient and elevated as to extort admiration from the excellent Italian doctor who attended him; and in a private letter by an eye-witness his departure was described as "a spectacle for the Gods; it was most edifying to see how a genuine conviction of immortality can make a man indifferent to what to ordinary people is so horrible."

In the intervals of painful difficulty of breathing he quoted from one of his own poems ("The Renewal of Youth," one which he preferred to earlier and better-known poems of his, and from it alone I quote):

"Ah, welcome then that hour which bids thee lie
In anguish of thy last infirmity!
Welcome the toss for ease, the gasp for air,
The visage drawn, and Hippocratic stare;
Welcome the darkening dream, the lost control,
The sleep, the swoon, the arousal of the soul!"

Death he did not dread. That is true; and his clear and happy faith was the outcome entirely of his scientific researches. The years of struggle and effort and systematic thought had begotten in him a confidence as absolute and supreme as is to be found in the holiest martyr or saint. By this I mean that it was not possible for any one to have a more absolute and childlike confidence that death was a mere physical event. To him it was an adversity which must happen to the body, but it was not one of those evil things which may assault and hurt the soul.

An important and momentous event truly, even as birth is; a

temporary lapse of consciousness, even as trance may be; a waking up to strange and new surroundings, like a more thorough emigration than any that can be undertaken on a planet; but a destruction or lessening of power no whit. Rather an enhancement of existence, an awakening from this earthly dream, a casting off of the trammels of the flesh, and putting on of a body more adapted to the needs of an emancipated spirit, a wider field of service, a gradual opportunity of re-uniting with the many who have gone before. So he believed, on what he thought a sure foundation of experience, and in the strength of that belief he looked forward hopefully to perennial effort and unending progress:

“Say, could aught else content thee? which were best,
After so brief a battle an endless rest,
Or the ancient conflict rather to renew,
By the old deeds strengthened mightier deeds to do?”

Such was his faith: by this he lived, and in this he died. Religious men in all ages have had some such faith, perhaps a more restful and less strenuous faith; but to Myers the faith did not come by religion: he would have described himself as one who walked by sight and knowledge rather than by faith, and his eager life-long struggle for knowledge was in order that he might by no chance be mistaken.

To some, conviction of this kind would be impossible—they are the many who know not what science is; to others, conviction of this kind seems unnecessary—they are the favoured few who feel that they have grasped all needed truth by revelation or by intuition. But by a few here and there, even now, this avenue to knowledge concerning the unseen is felt to be open. Myers believed that hereafter it would become open to all. He knew that the multitude could appreciate science no more, perhaps less, than they can appreciate religion; but he knew further that when presently any truth becomes universally accepted by scientific men, it will penetrate downwards and be accepted by ordinary persons, as they now accept any other established doctrine, such as the planetary position of the earth in the solar system or the evolution of species, not because they have really made a study of the matter, but because it is a part of the atmosphere into which they were born.

If continuity of existence and intelligence across the gulf of death really can ever be thus proved, it surely is a desirable and worthy object for science to aim at. There be some religious men of little faith who resent this attempted intrusion of scientific proof into their arena ; as if they had a limited field which could be encroached upon. Those men do not realise, as Myers did, the wealth of their inheritance. They little know the magnitude of the possibilities of the universe, the unimagined scope of the regions still, and perhaps for ever, beyond the grasp of what we now call science.

There was a little science in my youth which prided itself upon being positive knowledge, and sought to pour scorn upon the possibility, say, of prayer or of any mode of communication between this world and a purely hypothetical other. Honest and true and brilliant though narrow men held these beliefs and promulgated these doctrines for a time : they did good service in their day by clearing away some superstition, and, with their healthy breezy common-sense, freeing the mind from cant,—that is, from the conventional utterance of phrases embodying beliefs only half held. I say no word against the scientific men of that day, to whom were opposed theologians of equal narrowness and of a more bitter temper. But their warlike energy, though it made them effective crusaders, left their philosophy defective and their science unbalanced. It has not fully re-attained equilibrium yet. With Myers the word science meant something much larger, much more comprehensive : it meant a science and a philosophy and a religion combined. It meant, as it meant to Newton, an attempt at a true cosmic scheme. His was no purblind outlook on a material universe limited and conditioned by our poor senses. He had an imagination wider than that of most men. Myers spoke to me once of the possibility that the parts of an atom move perhaps inside the atom in astronomical orbits, as the planets move in the solar system, each spaced out far away from others and not colliding, but all together constituting the single group or system we call the atom,—a microcosm akin to the visible cosmos, which again might be only an atom of some larger whole. I was disposed at that time to demur. I should not demur now ; the progress of science within the last year or two makes the first part of this thesis even probable. On the latter part I have still nothing to say. On the former part much, but not now.

Nor was it only upon material things that he looked with the eye of

prescience and of hope. I never knew a man so hopeful concerning his ultimate destiny. He once asked me whether I would barter, if it were possible, my unknown destiny, whatever it might be, for as many æons of unmitigated and wise terrestrial happiness as might last till the fading of the sun, and then an end.

He would not! No limit could satisfy him. That which he was now he only barely knew,—for to him not the whole of each personality is incarnate in this mortal flesh, the subliminal self still keeps watch and ward beyond the threshold, and is in touch always with another life,—but that which he might come to be hereafter he could by no means guess: *οὐπω ἐφανερώθη τί ἐσόμεθα*. Gradually and perhaps through much suffering, from which indeed he sensitively shrank, but through which nevertheless he was ready to go, he believed that a being would be evolved out of him,—“even,” as he would say, “out of *him*,”—as much higher in the scale of creation as he now was above the meanest thing that crawls.

Nor yet an end. Infinity of infinities—he could conceive no end, of space or time or existence, nor yet of development: though an end of the solar system and therefore of mankind seemed to him comparatively imminent:

“That hour may come when Earth no more can keep
Tireless her year-long voyage thro’ the deep;
Nay, when all planets, sucked and swept in one,
Feed their rekindled solitary sun;—
Nay, when all suns that shine, together hurled,
Crash in one infinite and lifeless world:—
Yet hold thou still, what worlds soe’er may roll,
Naught bear they with them master of the soul;
In all the eternal whirl, the cosmic stir,
All the eternal is akin to her;
She shall endure, and quicken, and live at last,
When all save souls has perished in the past.”

Infinite progress, infinite harmony, infinite love, these were the things which filled and dominated his existence: limits for him were repellent and impossible. Limits conditioned by the flesh and by imperfection, by rebellion, by blindness, and by error,—these are obvious, these he admitted and lamented to the full; but ultimate limits, impassable barriers, cessation of development, a highest in the

scale of being beyond which it was impossible to go,—these he would not admit, these seemed to him to contradict all that he had gleaned of the essence and meaning of existence.

Principalities and Powers on and on, up and up, without limit now and for ever, this was the dominant note of his mind ; and if he seldom used the word God except in poetry, or employed the customary phrases, it was because everything was so supremely real to him ; and God, the personified totality of existence, too blinding a conception to conceive.

For practical purposes something less lofty served, and he could return from cosmic speculations to the simple everyday life, which is for all of us the immediate business in hand, and which, if patiently pursued, seemed to him to lead to more than could be desired or deserved :

“ Live thou and love ! so best and only so
 Can thy one soul into the One Soul flow,—
 Can thy small life to Life's great centre flee,
 And thou be nothing, and the Lord in thee.”

In all this I do not say he was right—who am I to say that such a man was right or wrong ?—but it was himself : it was not so much his creed as himself. He with his whole being and personality, at first slowly and painfully with many rebuffs and after much delay and hesitation, but in the end richly and enthusiastically, rose to this height of emotion, of conviction, and of serenity ; though perhaps to few he showed it.

“ Either we cannot or we hardly dare
 Breathe forth that vision into earthly air ;
 And if ye call us dreamers, dreamers then
 Be we esteemed amid you waking men ;
 Hear us or hear not as ye choose ; but we
 Speak as we can, and are what we must be.”

Not that he believed easily : let no man think that his faith came easily and cost him nothing. He has himself borne witness to the struggle, the groanings that could not be uttered. His was a keenly emotional nature. What he felt, he felt strongly ; what he believed, he believed in no half-hearted or conventional manner. When he doubted, he doubted fiercely ; but the pain of the doubt only stimulated

him to effort, to struggle ; to know at least the worst and doubt no longer. He was content with no half knowledge, no clouded faith, he must know or he must suffer, and in the end he believed that he knew.

Seeker after Truth and Helper of his comrades

is a line in his own metre, though not a quotation, which runs in my mind as descriptive of him ; suggested doubtless by that line from the *Odyssey* which, almost in a manner at his own request, I have placed in the fore-front of this essay. For he speaks of himself in an infrequent autobiographical sentence as having "often a sense of great solitude, and of an effort beyond my strength ; 'striving,'—as Homer says of Odysseus in a line which I should wish graven on some tablet in my memory,—'striving to save my own soul and my comrades' homeward way.'"

But the years of struggle and effort brought in the end ample recompense, for they gave him a magnificent power to alleviate distress. He was able to communicate something of his assurance to others, so that more than one bereaved friend learned to say with him :

"What matter if thou hold thy loved ones prest
Still with close arms upon thy yearning breast,
Or with purged eyes behold them hand in hand
Come in a vision from that lovely land,—
Or only with great heart and spirit sure
Deserve them and await them and endure ;
Knowing well, no shocks that fall, no years that flee,
Can sunder God from these, or God from thee ;
Nowise so far thy love from theirs can roam
As past the mansions of His endless home."

To how many a sorrowful heart his words have brought hope and comfort, letters, if ever published, will one day prove. The deep personal conviction behind his message drove it home with greater force, nor did it lose influence because it was enfranchised from orthodox traditions, and rang with no hollow professional note.

If he were right, and if his legacy to the race is to raise it towards any fraction of his high hopes and feeling of certainty in the dread presence of death : then indeed we may be thankful for his existence, and posterity yet unborn will love and honour his memory, as we do now.

XVII.

By SIR OLIVER LODGE, F.R.S.

January 31st, 1902.

IN continuing to occupy the Chair for another year I am called upon to address the Society, and I do so under some disadvantage as having not very recently had an opportunity for personal investigation into any important phenomenon about which the Society might be desirous of hearing. Accordingly it appears that I must make some general observations about certain aspects of our work, and must attempt a review of some portions of the situation.

To this end I propose to say something on each of the following topics, though I shall by no means attempt to treat any of them exhaustively :—

- (1) The current explanations of trance lucidity and clairvoyance.
- (2) The strange physical phenomena sometimes accompanying trance.
- (3) The views concerning these ultra-normal human faculties that most appeal to me.

First I will speak of trance lucidity and clairvoyance ; whereby I intend just now to signify the fact, the undoubted fact as it appears to me, that under certain conditions the mouth can speak and the hand can write concerning things wholly outside the normal ken of the mind usually controlling them. There are many questions of interest about this process : the muscles of the mouth and hand *appear*

to be stimulated, not from the brain centres dominated by the will, but from some more automatic and less conscious region of the brain, the part ordinarily supposed to be concerned in dreams and in hypnosis and automatisms generally; at any rate the normal customary mind of the writer or speaker does not appear to be drawn upon. And yet there appears to be an operating intelligence, with a character and knowledge of its own. The questions of interest are, What is that operating intelligence? and how is the extra knowledge displayed by it attained?

The chief customary alternative answers to the second question are two:—

(a) By telepathy from living people.

(b) By direct information imparted to it by the continued conscious individual agency of deceased persons.

On each of these hypothetical explanations so much has been said, for and against, that perhaps it is unnecessary to recapitulate the arguments; especially since in that (in every sense) considerable part of the *Proceedings* which has been recently issued, Professor Hyslop has dealt with the whole subject in an elaborate and careful manner; and, for my own part, I wish to express to him my thanks for the great care and labour he has bestowed upon this work, and for the valuable contribution to Science which he has made. I know by experience how troublesome it is, and how much time it consumes, to comment with anything like fulness upon a long series of trance utterances relating to domestic matters about which strangers are naturally quite uninformed and uninterested, and how difficult it is to make appear in the printed record any trace of the human and living interest sometimes vividly felt in the communications themselves by those to whom all the little references and personal traits have been familiar from childhood. No doubt all such records must necessarily appear very dull to strangers, just as a family conversation overheard in a railway carriage, about "Harry" and "Uncle Tom" and "Lucy" and the rest, becomes, if long continued, oppressively wearisome. Patience, however, is one of the virtues which any one aspiring to be a student has to learn. The bulk of Professor Hyslop's Report may deter a good many people from even beginning to read it; but I would point out that a great deal of this bulk consists, not of the record itself, but of comments on it, discussion of hypotheses concerning it, and a record of ingenious experiments undertaken, with the help of students and colleagues at Columbia University, for the purpose of elucidating it; and while the complete record is there for any future student to examine in detail, it is possible for any one skilled in the process of

reading and judicious skipping to make himself acquainted with the main features of Professor Hyslop's weighty and splendid piece of work without reading the whole volume.

This, however, is a digression.

Returning to the subject of trance-lucidity generally, I wish to emphasise my conviction that an explanation based on telepathy as a *vera causa* can be pressed too far. Telepathy is the one ultra-normal human faculty to the reality of which most of those who have engaged in these researches are prepared to assent; that is, to assent to it as a bare fact, a summary of certain observed phenomena; but its laws are unknown and its scope and meaning are not yet apparent. It is probably but one of a whole series of scientifically unrecorded and unrecognised human faculties; and it may turn out to be a mistake to attempt to employ it for the purpose of explaining a great number of other powers, which may be co-extensive or equipollent with itself; though the attempt is a natural and proper one to make. A key must be tried in all locks before we can be sure that it is not a master key; and if it open only one or two, it represents so much gained.

Telepathy itself, however, is in need of explanation. An idea or thought in the mind of one person reverberates and dimly appears in the mind of another. How does this occur? Is it a physical process going on in some physical medium or ether connecting the two brains? Is it primarily a physiological function of the brain, or is it primarily psychological? If psychological only, what does that mean? Perhaps it may not be a direct immediate action between the two minds at all; perhaps there must be an intermediary, —if not a physical medium, then a psychological medium,—or conceivably a third intelligence or mind operating on both agent and percipient, or in communication with both.

Until we can answer these questions,—and for myself I doubt if I have succeeded even in properly formulating them,—it is scarcely possible to regard telepathy, even from the sitter, as a legitimate explanation of much of the clairvoyance or lucidity noticed in trance utterances. It may have to be assumed as the least strained explanation, but it cannot with certainty be definitely asserted to be the correct one, even when it would easily cover the facts; still less is it permissible, except as the vaguest and most groping hypothesis, to press it whenever convenient beyond the limits of experiment into an extrapolated region, and to suppose that the minds of entirely disconnected and unconscious strangers at a distance are actually read: when it has never been experimentally shown that they *can* be read at all.

Those strangers must be supposed to be less familiar with the concerns of the person ostensibly represented as communicating through an entranced medium than he would be himself: why should we seek to go beyond the hypothesis of the agency of his in some way persisting intelligence and postulate the unconscious agency of outside or stranger persons? The reasons for doing so are obvious and may be cogent. It is easy to suppose that living people somewhere are acquainted each with one or two of the facts related by the clairvoyante: and these people exist; whereas we are not by any means so sure of the continued existence of the deceased person who is the ostensible communicator. In fact, that is just the thing we should like to be able to prove; *i.e.*, we should like to ascertain the actual truth concerning it, in a scientific way. Hence, again, I would plead that those of our members who are convinced of continued existence, continued accessible existence, must try to be patient with those of us who are not: impatience of any kind is out of place in this difficult quest, to which in all ages some part of humanity has devoted itself with only personal and not universal satisfaction.

One hypothesis concerning the agency of unembodied spirits is that they themselves temporarily occupy and animate some portion of the body of the medium, and thereby control a sufficient part of the physiological mechanism to convey the message they desire. The impression which such a hypothesis as this makes upon us depends upon the view that we take of our own normal powers: it derives any *prima facie* reasonableness which it may possess from the theory that we ourselves are mental entities, to which the names soul, spirit, etc., have been popularly applied, who may be said to form or accrete, to inhabit and to control a certain assemblage of terrestrial atoms, which we call our bodies; by means of which we, as psychological agents, can manage to convey more or less intelligible messages to other similarly clothed or incarnate intelligences: employing for that purpose such physical processes as the production of aerial vibrations, or the record left by ink traces upon paper.

Given that we are such mental entities or psychological intelligences, with the power of accreting and shaping matter by the act of feeding, we must note in passing the important fact that the manufacture of our bodies, just spoken of, is a feat accomplished by life without mind, or at least with only sub-conscious mind: it is wholly beyond the power of our conscious mind to perform. Feed a child, and in due course unconsciously he becomes a man,—a process beyond our control or understanding and wholly transcending our utmost executive skill.

Note further that it is the same unconscious life, or part of the body, or whatever is the proper term, which manages nearly all the ordinary vital processes, and disposes of our food or gives us indigestion as it sees fit. This may seem a frivolous interlude, but it is important in connection with what follows. It is perhaps obviously important in connection with the whole business of the inter-action between mind and matter.

The hypothesis which seeks to explain the control of a medium's body in trance by the agency of discarnate spirits, presumes that an elaborate machine like our bodies is capable of being occasionally used, not only by the mind or intelligence which manufactured it, so to speak, but temporarily and with difficulty by other minds or intelligences permitted to make use of it.

There are many difficulties here, and one of them is the assumption that such other intelligences exist. But that I confess is to me not a very improbable assumption; for knowing what we already certainly know of the material universe, of its immense scope, and the number of habitable worlds it contains (I do not say inhabited, for that the evidence does not yet reveal, but habitable worlds), realising also the absurdity of the idea that our few senses have instructed us concerning all the possibilities of existence which can be associated in our minds with the generalised idea of "habitable": perceiving also the immense variety of life which luxuriates everywhere on this planet wherever the conditions permit: I find it impossible to deny the probability that there may be in space an immense range of life and intelligence of which at present we know nothing.

Indeed, we ourselves are here on this planet and in this body for only a few score revolutions of the earth round the sun: a thousand months exceeds what we call the "lifetime" of most of us. Where or what we were before, and where or what we shall be after, are questions—intimately and necessarily connected with each other as I believe, and as Plato taught, or allowed himself to appear to teach—which as yet remain unanswered and as some think unanswerable.

But granting the possibility of a far greater and more widespread prevalence of life or mind than we have been accustomed to contemplate—a prevalence as extensive, perhaps, as that of matter—what is the probability that the different classes of life and mind interfere or inter-operate with each other? There is no *a priori* probability either way: it is purely a question for experience and observation.

By observation we learn that as a general rule the visible and

sensible inhabitants of this world are to all appearance left to pursue their own policy undisturbed except by mutual collision, conflict or co-operation. How much of this isolation is apparent, and how much of it is real, I will not now inquire. I believe it would be admitted by philosophers that the *appearance* of isolation and independence would be likely to present itself, even in a world where the reality was guidance and control; and certainly there have at all times been persons, called religious persons, who have felt more or less conscious of directing aid.

So it is with the material worlds:—they sail placidly along in the immensities of space, unimpeded and unhampered; and pluming themselves, perhaps, many of them—those whose physical atmosphere happens to be extra dense, or whose vision is otherwise limited—on the idea of complete, possibly they call it splendid, isolation. But we who see further, through our clearer air,—we, the heirs of Aristarchus, Copernicus, and Galileo, who realise the orbs of space,—know that this apparent freedom is illusory: that all their motions are controlled by a force of which they are unconscious: and that even the outward appearance of isolation, or immunity from external disturbance, is liable to be suddenly and violently terminated; for we know that in the depths of space, every now and then, a substantial encounter with some other similar body occurs—a collision, a catastrophe, and the blaze of what we call a new star: a phenomenon which by persons more closely concerned—persons in the immediate neighbourhood, if such there be—would rather be styled the destruction of an old one.¹

In the psychological world have we ever experienced any such ultra-normal phenomenon, any interference from without of our normal and placid condition; is there any record of an inrush of intelligence or of moral character beyond the standard of humanity, any avenue to information not normally accessible, any revolution in our ideas of God and of humanity and of the meaning of existence? Have we ever welcomed or maltreated a prophet or a seer of the first magnitude? Or, on a lower level, have we ever had experience, in our family life, of any strange occurrence, apparently hallucinatory

¹I am well aware that collision between solid habitable globes must be an extremely rare occurrence, and that collisions between widespread or nebulous masses must be much commoner. But the meaning of what I am saying does not depend on the habitability of the colliding masses, nor does it depend on the relative frequency of collisions; my point is to emphasise the rarity, but at the same time the possibility, of the occurrence.

but yet significant, any vision or voice or communication from friends beyond the normal range, or, it may be, from friends beyond the veil? Or, to go lower down still, have we ever witnessed any movement of material objects which by known causes or by normal inhabitants of this planet have not been moved?

It is a question of evidence whether such things have occurred; and opinions differ. For myself, I think they have. Part of the extra difficulty of accepting evidence for any unusual phenomena is the *a priori* notion that such occurrences are contrary to Natural Law, and are therefore impossible. We cannot, however, clearly tell that they are contrary to natural law; all we can safely say is that they are contrary to natural custom; or, safer still, that they are contrary or supplementary to our own usual experience. That last statement is safe enough; but between that and the adjective "impossible," or the equivalent phrase "contrary to the order of Nature," there is a vast and unfillable gap.

Whence, then, arises the antagonism—the inveterate and, let us hope, expiring antagonism—between orthodox science and the evidence that humanity has at different times adduced, the evidence which our Society has conscientiously worked at, that such occasional irruptions do occur? It arises, I think, because Science has a horror of the unintelligible: it can make nothing of a capricious and disorderly agent, and it prefers to ignore the existence of any such. It is accustomed to simplify its problems by the method of abstraction—that powerful practical method of ignoring or eliminating any causes which are too embarrassing, too complex or too trivial, to be taken into account. And by a long course of successful ignorance it may have acquired a habit of thinking that it can actually exclude, instead of only abstract, these disturbing causes. That, however, is beyond its power. Abstraction is a most useful process, but it can only exclude from consideration; it cannot really exclude from the universe¹ anything too complex or too apparently disorderly. Of course there is no real hesitation on the part of any one to admit such a statement as that; but nevertheless a certain amount of exclusion—exclusion from its own experimental area—science *has* found it possible to exert: and it has exercised this exclusion. If disturbances were frequent, trustworthy science would be almost impossible; life in the laboratory would be like that depicted by the author of *Prehistoric Peeps*, where long-necked reptiles assist at every entertainment.

¹ James Ward, *Naturalism and Agnosticism*, vol. i., p. 77.

So also a little mischief or malice might cause trouble in any scientific laboratory. Introduce a spider or other live animal into the balance or other delicate apparatus of the physicist, and he will for a time be thrown into confusion. Something capricious and disorderly has entered, and spoils everything. This is just the sort of annoyance which a scientific man would feel if suddenly introduced into a traditional séance in full activity. It would, however, be open to a first-rate experimentalist, even if a spider were a perfectly new experience to him, to catch it and tame it and get it to spin webs for his further instrumental convenience; but usually it would be ejected as too confusing, and its study would be left to the biologists. If biologists did not exist, if the live beast were the first ever experienced, and if, subsequent to the confusion, it escaped, it is difficult to see how a narrative of the experience could be received by any scientific society to which it was recounted, except with incredulity, more or less polite.

So, I conceive, could a human being, looking down on an ant world, inflict catastrophe and work miracles of a discomposing character. I suppose that the ordinary ant in populous countries must already have been liable to such irruptions and disturbance of its economy in past history, and may be thought to have accumulated and handed down some legends of such occurrences; but to ants in unexplored countries, the achievements of some shipwrecked mariner might come as a novel and incredible experience. And it may be noted that the performances of humanity could be beyond the powers of the ant community, not only in magnitude, but in kind. For instance, human beings might administer chemicals, or electric shocks, or sunlight concentrated by a lens.

Now, by far the greater number of the physical phenomena which are asserted to take place in the presence of a medium involve nothing in themselves extraordinary: the production of scent, for instance, the introduction of flowers and other objects, movements of furniture, the impress on photographic plates, are all of a nature that can easily be managed by normal means, given time and opportunity; and the only thing requiring explanation is how they are managed under the given conditions, more or less stringently devised to prevent their normal occurrence. This is a familiar old battleground, at which we glance and pass on.

But there is a residue of traditional physical phenomena which involve an effect beyond ordinary human power to accomplish. For instance, the asserted resistance of the human skin and nerves to fire,

usually though not always when under religious emotion or in some trance state; or the extraction of a solid object from a permanently closed box; or, what is much more commonly asserted than the other two, the materialisation or appearance of temporary human forms.

I confess that I myself have never seen any of these things achieved under satisfactory conditions, but the evidence of Sir William Crookes and others for certain of them is very detailed; and it is almost as difficult to resist the testimony as it is to accept the things testified. Moreover, some in this audience must imagine themselves perfectly familiar with all these occurrences.

Let us therefore see whether, in the light of our present knowledge of Physics, they are wholly impossible and absurd, so that no testimony could produce any effect on our incredulity; or whether we may complacently inquire into the evidence, and be prepared to investigate any given case of their occurrence; with care and due scepticism undoubtedly, but not with fixed and impervious minds.

One of the three instances quoted seems in some respects the simplest and most definite, inasmuch as it keeps off the less familiar ground of physiology and biology and touches only on physics. I mean the phenomenon commonly spoken of as the "passage of matter through matter,"—the passage or leakage of one inorganic solid through another, without damage or violence. Asserted instances of this are such as the tying or untying of knots on an endless string, the extraction of a billiard ball from a permanently closed shell, and the linkage together of two closed rings. I have never seen a trustworthy instance of any of these occurrences. I know of rings being put over things apparently too large—a ring on the stem of a wineglass, for instance, or on the leg of a round table, or on a man's wrist,¹—but I have never seen a permanent and undeniable instance of what may be termed a physical miracle; and I am not aware that there is such a thing on view in the world as, for instance, the linkage of unjoined rings of different kinds of wood: though perhaps the skill of the botanist or tree fancier might manage to accomplish this by constrained growth under favourable conditions. I assume, however, that any natural mode of doing it could be detected by proper botanical examination of the result.

¹The iron ring on Husk's wrist being believed by Dr. George Wyld to be miraculously small, *i.e.* too small to have ever gone over the hand; see *Proceedings S.P.R.*, vol. III., p. 460, for an account of an investigation of this phenomenon by Sir William Crookes, Mr. Victor Horsley, and others, who concluded that the ring might have come into the position in which they found it by known natural forces.

A couple of rings of unjoined leather, cut out of a single skin, have been shown linked together; but this linkage can be managed by taking advantage of the thickness of the skin and by judicious cutting. An assemblage of wineglass and egg-cup stems, packed through a hole in a piece of wood, has been produced in Berlin, and has been kindly lent for our inspection; but though this is asserted to have been produced under supernormal conditions, it is certainly only of the nature of a moderately ingenious mechanical contrivance involving skilled and deceptive construction. A similar object, consisting of a wooden ring on the neck of a glass vase, recently constructed (quite normally) in Sir William Crookes's laboratory, I am also permitted to exhibit.

But concerning the abnormal "passage of matter through matter," I am not aware that Sir William Crookes has ever testified to any instance of it; the only scientific evidence that I am acquainted with was that given by Professor Zöllner, which, though extremely curious and puzzling and detailed, does not leave a feeling of conviction on the unprejudiced mind.

Accordingly, the simplest thing for me, or any other scientific man at the present day, is to treat the case of matter through matter as not only unproven but as impossible, and to decline to consider it. Nevertheless, so many extraordinary things have happened that I would not feel too certain that we may not some day have to provide a niche for something of this kind. If so, one hardly likes to suggest that the recently-discovered probably complex structure of the material atom, with interspaces very large in proportion to the aggregate bulk of its actual constituents, may have to be appealed to, in order to explain the hypothetical interpenetration of two solids. At present, however, the difficulties of any such hypothesis are enormous, and I confess myself an entire sceptic as to the occurrence of any such phenomenon, and should require extremely cogent evidence to convince me.

But it may be said, Do I find movements of untouched objects, or do I find materialisations, any easier of belief? Yes, I do. I am disposed to maintain that I have myself witnessed, in a dim light, occasional abnormal instances of these things; and I am certainly prepared to entertain a consideration of them.

Suppose an untouched object comes sailing or hurtling through the air, or suppose an object is raised or floated from the ground, how are we to regard it? This is just what a live animal could do, and so the first natural hypothesis is that some live thing is doing it; (a) the

medium himself, acting by trick or concealed mechanism; (b) a confederate,—an unconscious confederate perhaps among the sitters; (c) an unknown and invisible live entity other than the people present. If in any such action the ordinary laws of nature were superseded, if the weight of a piece of matter could be shown to have *disappeared*, or if fresh energy were introduced beyond the recognised categories of energy, then there would be additional difficulties; but hitherto there has been no attempt to establish either of these things. Indeed it must be admitted that insufficient attention is usually paid to this aspect of ordinary commonplace abnormal physical phenomena. If a heavy body is raised under good conditions, we should always try to ascertain (I do not say that it is easy to ascertain) where its weight has gone to; that is to say, what supports it, what ultimately supports it. For instance, if experiments were conducted in a suspended room, would the weight of that room, as ascertained by an outside balance, remain unaltered when a table or person was levitated inside it? or could the agencies operating inside affect bodies outside?—questions these which appear capable of answer, with sufficient trouble, in an organised psychical laboratory: such a laboratory as does not, I suppose, yet exist, but which might exist, and which will exist in the future, if the physical aspect of experimental psychology is ever to become recognised as a branch of orthodox physics.

Or take materialisations. I do not pretend to understand them, but, as I have hinted in an earlier part of this Address, if ever genuine and objective, they may after all represent only a singular and surprising modification of a known power of life. Somewhat as a mollusc, or a crustacean, or a snail can extract material from the water or from its surroundings wherewith to make a shell, or—a closer analogy—just as an animal can assimilate the material of its food and convert it into muscle, or hair, or skin, or bone, or feathers—a process of the utmost marvel, but nevertheless an everyday occurrence,—so I could conceive it possible, if the evidence were good enough, that some other intelligence or living entity, not ordinarily manifest to our senses, though possibly already in constant touch with our physical universe by reason of possessing what may be called an etherial body, could for a time utilise the terrestrial particles which come in its way, and make for itself a sort of material structure capable of appealing to our ordinary senses. The thing is extremely unlikely, but it is not altogether unimaginable. Nor is it physically impossible that some of these temporary semi-material accretions might be inadequate to appeal to our eyes and yet be of a kind able to

impress a photographic plate ; but here I confess that the evidence, to my mind, wholly breaks down, and I have never yet seen a satisfying instance of what is termed a spirit photograph ; nor is it easy to imagine the kind of record, apart from testimony, which in such a case would be convincing ; unless such photographs could be produced at will.

The evidence for photographs of invisible people which we sometimes hear adduced as adequate is surprisingly feeble. For instance, in a recent anonymous and weak book, said to be written by a member of this Society, two such photographs are reproduced which are said to have been obtained under what are considered crucial conditions ; but the narrative itself at once suggests a simple trick on the part of the photographer, viz., the provision of backgrounds for sitters with vague human forms all ready depicted on them in sulphate of quinine.

The ingenious and able impositions of a conjurer are *causæ verissimæ*, and full allowance must be made for them. Some of the physical phenomena which I have adduced as among those proclaimed to have occurred, such as *apports*, scent, movement of objects, passage of matter through matter,¹ bear a perilous resemblance to conjuring tricks, of a kind fairly well known ; which tricks if well done can be very deceptive. Hence extreme caution is necessary, and full control must be allowed to the observers,—a thing which conjurers never really allow : I have never seen a silent and genuinely-controlled conjurer : and in so far as mediums find it necessary to insist on their own conditions, so far they must be content to be treated as conjurers. Honest and good people are often the most readily deceived, especially by protestations and by injured innocence : so certain Members and Associates of this Society must be good enough to pardon the rest of us for being, as they think, stupidly and absurdly sceptical about the reality of many phenomena in which they themselves strongly believe. “Facts are chiels that winna ding,” says Robert Burns. So is belief. One cannot coerce belief. And it is difficult sometimes to adduce satisfying reasons for either the faith or the incredulity that is in us on any particular topic.

One is frequently asked by casual and irresponsible persons : Do you *believe* in so and so ? usually : Do you believe in ghosts ?—a question which ordinarily has no meaning in the mind of the asker, and to

¹ A technical phrase which I do not justify and do not trouble to improve upon until convinced of the genuineness of the kind of occurrence intended by that phrase.

which a categorical reply, either yes or no, would convey no real information. The best answer to such a question is that belief is not our business, but that investigation is; and if any answer beyond that is to be given to a stranger, it must take the form of a question asking for a definition of the terms used,—a stage beyond which the casual inquirer can rarely go.

But suppose he can, and is not a flippant inquirer, with an eye to ridicule, or a comic article in the Press. This Society, for instance, is not in the position of a casual and irresponsible inquirer; almost every grade of opinion, and probably almost every grade of intelligence, exists among its members; indeed it would be only wholesome in the present state of our knowledge if each one of us held a different shade of opinion. Moreover, some of our members must have devoted the greater part of a lifetime to the subject, and must be far more experienced than myself; but still if any one cares to hear what sort of conviction has been borne in upon my own mind, as a scientific man, by some 20 years' familiarity with those questions which concern us, I am very willing to reply as frankly as I can.

First, then, I am, for all personal purposes, convinced of the persistence of human existence beyond bodily death; and though I am unable to justify that belief in a full and complete manner, yet it is a belief which has been produced by scientific evidence; that is, it is based upon facts and experience, though I might find it impossible to explain categorically how the facts have produced that conviction. Suffice it to say for the present that it is not in a simple and obvious way, nor one that can be grasped in an hour or two, except by those who have seriously studied the subject, and are consequently equally entitled to an opinion of their own.

For if asked: Do I associate physical movements and other physical phenomena with the continued existence of deceased persons? I must answer I do not. The phenomena always occur in the presence of the living, and the natural supposition at first is that the living in some unknown way produced them; that, in so far as they are not tricks, they represent an unexpected and unrecognised extension of human muscular faculty;—a faculty which, by the way, though we are well accustomed to it, is itself, in its quite normal manifestations, a most noteworthy phenomenon, and philosophically considered of extreme significance; though it would take too long to bring out the full meaning of what I here suggest. Suffice it to say that by the action of live things the ordinary processes of the degradation

or dissipation of energy can be diverted or suspended or reversed¹; weights can be raised which inorganically would have fallen; rivers can be deflected, and the face of the earth changed; and, most surprising of all, a conclave of persons can sit and decide, or to all appearance decide, whether a certain thing shall happen or shall not.

If pressed, I must confess that I do not see how the hypothesis of the continued existence of human personalities, so long as they are disconnected with bodies and muscles, is any real help in explaining ultra-normal physical movements; except that since the movements show traces of what we ordinarily speak of as will and intelligence, they do suggest the agency of live things of some kind.

But then I see no reason for limiting the possibilities of existence—it may be of inter-planetary or of extraspatial existence—to those friends of ours who have recently inhabited this planet.

Eliminating physical phenomena therefore for the present, suppose that I am asked further: Do you consider that trance-utterances are ever due to the agency of departed persons? I am bound to say that, as regards the content or intelligence of the message, I have known cases which do very strongly indicate some form of access to a persistent portion of the departed personality; and occasionally, though rarely, the actual psychical agency of a deceased person is indicated.

But if by agency my hearers understand me to mean in all cases conscious agency, direct communication with full consciousness of what is going on, they must allow me to explain that of that in most cases I am extremely doubtful. It seems to me much more often like a dream intelligence or a sub-conscious part of the persistent mind that we have access to, not a conscious part. It appears to me still a true kind of telepathy; and telepathy from, as well as to, a sub-conscious stratum. This use of the term is an extension of its ordinary one, but it is an extension which appears to be required. (See Mrs. Sidgwick, *Proceedings S.P.R.*, vol. XV., pp. 17, 18.)

The medium when awakened does not usually remember, is not really conscious of, the communication which has been spoken or written: not until he or she returns to the state of trance. Nor should I expect the ostensible communicator, so long as he is anything like ourselves, to remember or to be properly conscious of what has been, as it were, drawn from his memory, until he too returns once more into the same dream-like or semi-conscious or sub-conscious condition. There may be all grades of recollection, however; analogous

¹Witness "Maxwell's demons" in theory, and nitrifying bacteria in what is now accepted as botanical fact.

to the various grades of reminiscence of ordinary dreams, as and after we wake.

Moreover, it appears as if the portion of the deceased person which, on this hypothesis, is once more in a manner materialised for us, and with which we hold communication, is sometimes but a very fragmentary portion¹; so fragmentary that if at some other or at the same time the same ostensible individual is operating through another medium elsewhere, the two portions are, I believe, sometimes unaware of what each is, so to speak, saying, and are liable to deny each other's genuineness. Occasionally, however, in my experience, there has been an indication that the bare fact of simultaneous communication through two mediums is known or felt; and I urge that more experiments and observations are needed in this direction, which will, I hope, prove an extremely helpful line of research if only it can be worked. The difficulties are obviously great and the opportunities few. Anyhow it will be agreed that this double communication from ostensibly one intelligence, with the contents of each message unknown to the other communicator, is an interesting and instructive phenomenon, if it is real, and one that fits in excellently with Mr. Myers' luminous hypothesis of the subliminal self.

For, to tell truth, I do not myself hold that the whole of any one of us is incarnated in these terrestrial bodies; certainly not in childhood; more, but perhaps not so very much more, in adult life. What is manifested in this body is, I venture to think likely, only a portion, an individualised, a definite portion, of a much larger whole. What the rest of me may be doing, for these few years while I am here, I do not know: perhaps it is asleep; but probably it is not so entirely asleep with men of genius; nor, perhaps, is it all completely inactive with the people called "mediums."

Imagination in science is permissible, provided one's imaginings are not treated as facts, nor even theories, but only as working hypotheses,—a kind of hypothesis which, properly treated, is essential to the progress of every scientific worker. Let us imagine, then, as a working hypothesis, that our subliminal self—the other and

¹Probably these limitations are all due to imperfections of the physical mechanism, or rather to the difficulty of controlling it under the given circumstances,—

- (a) of controlling it at all,
- (b) of controlling it solely, *i.e.* unconfused with other influences,
- (c) of controlling it continuously, without breaks analogous to wandering of attention;

but whatever the limitations are due to, they are interesting and instructive.

greater part of us—is in touch with another order of existence, and that it is occasionally able to communicate, or somehow, perhaps unconsciously, transmit to the fragment in the body, something of the information accessible to it. This guess, if permissible, would contain a clue to a possible explanation of clairvoyance. We should then be like icebergs floating in an ocean, with only a fraction exposed to sun and air and observation: the rest—by far the greater bulk—submerged in a connecting medium, submerged and occasionally in subliminal or sub-aqueous contact with others, while still the peaks, the visible bergs, are far separate.¹

“We feel that we are greater than we know.”

Or, reversing the metaphor, we might liken our present state to that of the hulls of ships submerged in a dim ocean among many strange beasts, propelled in a blind manner through space; proud, perhaps, of accumulating many barnacles as decoration; only recognising our destination by bumping against the dock wall; and with no cognisance of the deck and the cabins, the spars and the sails, no thought of the sextant and the compass and the captain, no perception of the look-out on the mast, of the distant horizon, no vision of objects far ahead, dangers to be avoided, destinations to be reached, other ships to be spoken with by other means than bodily contact,—a region of sunshine and cloud, of space, of perception, and of intelligence, utterly inaccessible to the parts below the waterline.

Incidentally, if one were permitted rather rashly to speculate, it might be suggested that most of the disputes about re-incarnation could be hypothetically reconciled by this hypothesis of the subliminal self. Not the same individual portion need perhaps be incarnated again, but another phase of the whole; and so gradually each aspect might acquire the experience, the submerged experience, so to speak, and the practical training, obtainable by incarnate life on one of the vagrant lumps of matter known as habitable planets.

So also are the difficulties of birth and recent childhood, recent nonentity, minimised by the subliminal self hypothesis. The suggestion is an obvious one that as a body becomes gradually ready and the child grows, so more and more of the total personality *leaks*, as it were, into it, until we get the adult individual as we know him: sometimes more of the whole—what we call a great man: sometimes

¹ Perhaps it may not be superfluous to say that an iceberg floats with only about $\frac{1}{8}$ th of its bulk above water.

less—a deficient man. And death is the rejoining and re-uniting of the temporarily almost dissevered and curiously educated fraction to the whole. Shall such a mental entity be only capable of complete and thorough incarnation? Shall it never in some dreamy and semi-conscious or unconscious state influence another body, or take any physical part in the scenes in which for a time it was so interested? The opportunities appear to be scarce, and the phenomenon is rare; but who is to say that it is non-existent; and who shall say that the fact that the communications are vague, hesitating, uncertain, sometimes mistaken, and never complete,—though no doubt there are several grades towards completeness,—goes to prove that the residue is not genuine? It is occasionally almost like trying to hold a conversation with some one in his sleep: it is hard to judge of a personality by that sort of test. Indeed, there are all grades of brilliancy even in our own waking complete selves: not always are we at our best; and odd conceptions might be formed of our intelligence if a stranger judged us by our remarks on the weather or the crops. I am told that Browning spoke in quite a commonplace manner concerning the weather.

How often have we not found that the utterances of some eminent person, even in his full bodily manifestation, do not come up to our idea of him: an idea perhaps based on an acquaintance with a record of his more fully developed personality in moments of inspiration. There is a tale concerning Tennyson which I recently heard; it may not be true, but it is quite possible. A lady, a worshipper of Tennyson, and long desirous of seeing him, was once to her great joy invited to a dinner at which he sat opposite to her, and she listened open-eared for his conversation. He spoke very little, however, being apparently in an uninspired mood, not to say a grumpy humour; and the only phrase she distinctly caught was, "I like my mutton in chunks." That lady might easily have gone away convinced that she had been the victim of a fraud, and that some unpoetic person had been palmed off on her as "the bard," after the manner of the dinner party in *The Golden Butterfly*.

The fact that a "control" who frequently sends messages, brings with him each time only the memory of previous messages through the same medium, and is unaware of his other supposed manifestations through other mediums, is very suggestive of what we know concerning secondary and multiple personalities. The complete or complex personality itself may perhaps know all about them all; but with this complete personality we seem unable to get into com-

munication; we can so far only reach the fragments, and through different mediums different fragments, as if—speaking of it as a kind of incarnation,—as if the temporary incarnation were affected or regulated by the kind of body occupied, and could not manifest in identical fashion when constrained by the limitations of different instruments; just as an executive musician would naturally appeal to different emotions if given, alternately, a violin, a cornet, a flute, and a concertina. We can hardly expect, on any view, to reach more than what we have supposed to be the fraction which had been manifested here in the flesh during earth life, but it appears as if we could not reach so much as that—only a fragment of that. The specially adapted and educated body and brain which it was wont to use is no longer available,—the organ is broken, and the organist is asked to manifest his identity on the harmonium of a country church.

But neither telepathy nor yet the agency of deceased persons is able to explain the asserted power of true clairvoyance properly so-called: the perception of things unknown to every mind of a human order¹; nor prediction of a kind other than inference.² These are great subjects, and I have something to say about them too, though whether it is worth saying at the present time is very doubtful, for I am not by any means convinced that either of these things ever occurs. I will only say, therefore, in general, that the vague hypothesis of a world-soul, or an immanent Mind, of which even the totality of ourselves are only microscopic fragments, as our ordinarily known selves have been supposed to be more substantial fragments of our entire selves—a Mind to which space and time are not the barriers and limitations which they appear to us—a Mind to which the past, present, and future are not indeed all one, but yet in a manner perceivable at will as a simultaneity as well as a sequence, and in which no transit or travel is necessary to pass from one place to another,—I must say that a vague hypothesis of this kind—a notion familiar to all philosophers—is often forced across

¹ For instance, the reading of numbers or letters grasped at random and thrown into a bag; or of a piece of newspaper torn out anywhere and sealed up without having been looked at, and the residue promptly burnt; if such a thing ever occurs.

² If such a thing is conceivable as real prevision not deducible from a wide knowledge or survey of contemporaneous events; for instance, the winner of a neck-and-neck race, or the exact date of some optional and as yet undecided event. But these are not good instances, for it must be assumed *possible* that the predicting agency might act so as to bring about fulfilment.

my vision as I think over the problems of this great and wonderful universe.

To suppose that we know it all: to suppose that we have grasped its main outlines, that we realise pretty completely not only what is in it, but the still more stupendous problem of what is not and cannot be in it—is a presumptuous exercise of limited intelligence, only possible to a certain very practical and useful order of brain, which has good solid work of a commonplace kind to do in the world, and has been restricted in its outlook, let us say by Providence, in order that it may do that one thing and do it well. Some of these gnostic persons have been men of science, others have been men of letters, some of them again politicians and men of business: some few of them have called themselves philosophers,¹ but the world has not thought them its greatest philosophers. The instinct of the world in the long run, though only in the long run, is to be trusted; and the great men whom it has picked out as philosophers of the very first magnitude—the philosopher Plato, of the older time, and the philosopher Kant, of the more modern era—did not so limit their conception of the possible; nor have the greatest poets, those whom humanity has canonised among its greatest poets—Virgil, let us say, and Wordsworth and Tennyson—neither have they looked with dim beclouded eyes on the present of the universe, or on the past and the future of man.

Hear Tennyson on the origin of life and the antecedents of human existence:—

Out of the deep, my child, out of the deep,
From that true world within the world we see,
Whereof our world is but the bounding shore.

¹ One cannot but sympathise to some extent with those philosophers who urge that the progress of humanity has been achieved by attention to a development of our full consciousness, and that reversion to the subconscious or to dream states is a step back. It must be noted, however, that the adjective “subliminal,” as we understand it, is not suggestive of subordinate or subsidiary, but is far more nearly related to “sublime”: a statement which, considered objectively, the philosophers in question would probably disallow. If they mean that for the active and practical concerns of life consciousness must be our guide and our adviser, I am with them; but if they mean (as I am sure they do not, when pressed) that inspiration is attained through consciousness, or that it is unlawful and unfruitful to investigate the subconscious, where (I suggest) lie the roots of the connection between mind and matter; then I must join issue with them. So might an iceberg, glorying in its crisp solidity and sparkling pinnacles, resent attention paid to its submerged subliminal supporting region, or to the saline liquid out of which it arose, and into which in due course it will some day return.

Hear him also on the present, and on the possibilities of inter-communion :—

The Ghost in Man, the Ghost that once was Man,
But cannot wholly free itself from Man,
Are calling to each other thro' a dawn
Stranger than earth has ever seen ; the veil
Is rending, and the Voices of the day
Are heard across the Voices of the dark.

And yet again on the future, and the ultimate reconciliation of matter and mind :—

And we, the poor earth's dying race, and yet
No phantoms, watching from a phantom shore
Await the last and largest sense to make
The phantom walls of this illusion fade,
And show us that the world is wholly fair.

A quotation from Virgil, as translated by Mr. Myers, may be permitted even to one who has no claim to be a scholar. It is from the speech of Anchises, in Book VI. of the *Æneid*, in reply to Æneas's question whether the departed ever wish to return to the flesh ; and Anchises, while maintaining that the flesh was a burden well cast off, takes occasion to assert the essential unity of life and of mind throughout the universe :—

One Life through all the immense creation runs,
One Spirit is the moon's, the sea's, the sun's ;
All forms in the air that fly, on the earth that creep,
And the unknown nameless monsters of the deep—
Each breathing thing obeys one Mind's control,
And in all substance is a single Soul.

And, lastly, let us hear Wordsworth in that immortal *Ode* which hymns the Platonic doctrine of life and an ever-present though seldom realised connecting link between the diverse orders of existence :—

Hence in a season of calm weather
Though inland far we be,
Our Souls have sight of that immortal sea
Which brought us hither,
Can in a moment travel thither,
And see the Children sport upon the shore,
And hear the mighty waters rolling evermore.

Meanwhile, what have we to do ? To inquire, to criticise, to discover, but also to live,—to live this life here and now : aided thereto, it may be, by a laboriously acquired certainty that it is only an

interlude in a more splendid drama. With some people, belief has preceded and frustrated inquiry: others there are with whom investigation has resulted in belief: and yet again others to whom belief continues unattainable in spite of conscientious effort and research. Those who feel assured of a future existence may be thankful; but those who cannot feel so assured, with them also it is well, if they apply their energies to service on this earthly plane, and reap the wholesome and natural joys accessible to us in our present state.

Thanks to the human heart by which we live,
Thanks to its tenderness, its joys, and fears,
To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears.

XVIII.

By SIR OLIVER LODGE, F.R.S.

January 30th, 1903.

IN taking the Chair of this Society for one more year and giving a third Presidential Address, I think it desirable to treat the subject from a business point of view, and to consider on what lines the Society may profitably work in the future. It must be remembered that our primary aim is to be a Scientific Society, to conduct our researches and to record our results in an accurate and scientific manner, so as to set an example of careful work in regions where it has been the exception rather than the rule, and to be a trustworthy guide to the generation of workers who shall follow.

To be scientific does not mean to be infallible, but it means being clear and honest, and as exact as we know how to be. In difficult investigations pioneers have always made some mistakes, they have no immediate criterion or infallible touchstone to distinguish the more true from the less true, but if they record their results with anxious care and scrupulous honesty and painstaking precision, their mistakes are only less valuable to the next generation than their partially true generalisations; and sometimes it turns out, after a century or

so, that mistakes made by early pioneers were no such thorough errors as had been thought, that they had an element of truth in them all the time, as if discoverers were endowed with a kind of prophetic insight whereby they dimly glimpsed theories and truths which it would take several generations of workers to disencumber and bring clearly to light.

Suppose, however, that their errors were real ones, the record of their work is just as important to future navigators as it is to have the rocks and shoals of a channel mapped out and buoyed. It is work which must be done. The great ship passing straight to its destination is enabled to attain this directness and speed by the combined labours of a multitude of workers, some obscure and forgotten, some distinguished and remembered, but none of whom were able to realise the stately passage of the great ship through the channels marked out for it, and by aid of mechanism which they had taken a part in designing or constructing. So it is with every great erection; and the Forth Bridge stands upon piers sunk below the water-mark by the painful and long continued labours of Italian workmen in "caissons" full of compressed and heated air.

The study of specifically Natural knowledge was fostered and promoted by the recognition in the reign of Charles II. of a body of enthusiasts who, during the disturbed but hopeful era of the Commonwealth, had met together to discuss problems of scientific interest; and to-day the Royal Society is among the dignified institutions of our land, taking all branches of Natural Philosophy and Natural History—the Physical Sciences and the Biological Sciences—under its wing.

Us it does not recognise, but then neither does it recognise Mental and Moral Philosophy, or Ethics, or Psychology, or History, or any part of a great region of knowledge which has hitherto been regarded as outside the pale of the Natural Sciences.

It is for us to introduce our subjects within that pale, if it turns out that there they properly belong; and if not, it is for us to do pioneer work and begin the establishment of another Society or group of Societies for recognition and promotion of work in the mental, the psychological, the psychical direction, until the day for unification shall arrive.

Half knowledge sees divisions and emphasises barriers, delights in classification into genera and species, affixes labels, and studies things in groups. And all this work is of the utmost practical value and is essentially necessary. That the day will come when barriers shall be broken down, when species shall be found to shade off into one another, when continuity and not classification shall be the dominant feature, may be anticipated by all, but we have no power of hastening the day except by taking our place in the workshop and doing our assigned quota; still less have we any advantage in pretending that the day of unification has arrived while as yet its dawn is still in the future.

Returning to my thesis I say our primary aim is to be a scientific Society, doing pioneering and foundation work in a new and not yet incorporated tract on which future generations may build, and making as few mistakes as we can reasonably contrive by the exercise of great care.

We are not a literary society, though we have had men of letters among our guides and leaders; and we are not a religious society, though some of our members take an interest in our subject because it seems to them to have a bearing on their religious convictions or hopes. I will say a few words on both these points. First, our relations to literature.

The name of Francis Bacon is a household word in the history of English scientific ideas. I do not mean in the recent, and as it seems to me comic, aspect, that he wrote everything that was written in the Elizabethan era (a matter to which I wish to make no reference one way or the other, for it is completely off my path), but before that hare was started his name was weighty and familiar in the history of English scientific ideas. It is instructive to ask why. Was he a man of Science? No. Did he make discoveries? No. Do scientific men trace back their ancestry to him? No. To Isaac Newton they trace it back, to Gilbert, to Roger Bacon, speaking for those in England; but of Francis Bacon they know next to nothing. Outside England all the world traces its scientific ancestry to Newton, to Descartes, to Galileo, to Kepler; but of Francis Bacon scientific men outside England have scarcely heard, save as a man of letters. Yet the pro-

gress of science owes much to him. All unconsciously scientific men owe to him a great debt. Why?

Because he perceived afar off the oncoming of the scientific wave, and because he was able, in language to which men would listen, to herald and welcome its advance.

Scientifically he was an amateur; but he was an enthusiast who with splendid eloquence, with the fire of genius, and with great forensic skill, was able to impress his generation, and not his own generation alone, with some idea of the dignity and true place of science, and to make it possible for the early pioneers of the Royal Society to pursue their labours unimpeded by persecution and to gain some sort of recognition even from general and aristocratic Society.

For remember that the term "science" was not always respectable. To early ears it sounded almost as the term witchcraft or magic sounded, it was a thing from which to warn young people; it led to atheism and to many other abominations. It was an unholy prying into the secrets of Nature which were meant to be hid from our eyes, it was a thing against which the Church resolutely set its face, a thing for which it was ready if need were to torture or to burn those unlucky men of scientific genius who were born before their time. I mean no one Church in particular: I mean the religious world generally. Science was a thing allied to heresy, a thing to hold aloof from, to shudder at, and to attribute to the devil. All which treatment that great and eminent pioneer, Roger Bacon, experienced at our beloved University of Oxford; because the time was not yet ripe.

How came it that in the days of the Stuarts the atmosphere was so different from that prevalent in the days of the Plantagenets? Doubtless the age of Elizabeth, the patriotism aroused by the Armada and by the great discoveries in geography, had had their vivifying effect; and the same sort of originality of thought which did not scruple to arraign a king for high treason likewise ventured to set orthodoxy at defiance, and to experiment upon and investigate openly all manner of natural facts. But I wish to maintain, or at least to suggest, that the result was largely due to the influence of the writings of Francis Bacon. He had accustomed scholars and literary men to the possibilities and prerogatives of scientific enquiry, he had emphasised

the importance and the dignity of experiment, and it is to his writings that the rapid spread of scientific ideas, discovered as always by a few, became acceptable to and spread among the many.

Do not let us suppose, however, that the recognition of science was immediate and universal. Dislike of it, and mistrust of the spread of scientific enquiry, persisted well into the Victorian era, and is not wholly extinct to this day.

I am not at the moment speaking of investigation into affairs of the mind—that is unpopular and mistrusted still, and still good people are found who will attribute anything unusual to the devil, and warn young people from it,—but I refer to some slight trace of lingering prejudice against the orthodox sciences of Chemistry and Physics and Biology. They have achieved their foothold, they are regarded with respect, people do not disdain to make money by means of them when the opportunity is forthcoming, but they are not really liked. They are only admitted to our Schools on sufferance, as an inferior grade of study suited to the backward and the ignorant; they are not regarded with affection and enthusiasm, as revelations of Divine working, to be reverently studied, nor as subjects in which the youth of a nation may be wholesomely and solidly trained.

Very well, still more is the time not quite ripe for our subject; pioneers must expect hard knocks, the mind of a people can change only slowly; and until the mind of a people is changed, new truths born before their time must suffer the fate of other untimely births; and the prophet who preaches them must expect to be mistaken for a useless fanatic, of whom every age has always had too many, and must be content to be literally or metaphorically put to death, as part of the process of the regeneration of the world.

The dislike and mistrust and disbelief in the validity or legitimacy of psychical enquiry is familiar. The dislike of the Natural Sciences is almost defunct. It survives undoubtedly; they are not liked but they are tolerated: and I am bound to say that part of the surviving dislike is due not alone to heredity and imbibed ideas, but to the hasty and intolerant and exuberant and splay-footed attitude of some

men of science, who, knowing themselves to be reformers, feeling that they have a grain of seed-corn to plant and water, cannot be content to go about their business in a calm and conciliatory spirit, but must seek to hurry things on by a roughshod method of progression, which may indeed attain its ends, but gives some pain in the process, and perhaps achieves results less admirable than those which might have been attained by the exercise of a little patience, a little more perception of the point of view of others, a little more imagination, a little more of that recognition of the insignificance of trifles and of the transitory character of full-blown fashions which is called a sense of humour, a little more cultivation of the historic sense. In a word a little more general education.

I am digressing again. I was pointing out the importance of Francis Bacon as a man of letters in the history of the development of the national recognition of the natural sciences in England.

Has it struck you, it has often struck me, that in the history of the psychical sciences we too have had a Bacon, and one not long departed from us? Is it possible that in the two volumes, which to-day or to-morrow may be emerging from the press, we have a book which posterity will regard as a *Novum Organon*? History does not repeat itself, and I would not draw the parallel too close. It may be that posterity will regard Myers as much more than that, as a philosophic pioneer who has not only secured recognition for, but has himself formulated some of the philosophic unification of, a mass of obscure mental and barely recognised human faculty, and has thrown a light on the meaning of personality which may survive the test of time. It may be so, but that is for no one living to say. Posterity alone, by aid of the experience and further knowledge which time brings, is able to make a judgment of real value on such a topic as that.

Meanwhile it is for us to see that time does bring this greater knowledge and experience. For time *alone* is impotent. Millions of years passed on this planet, during which the amount of knowledge acquired was small or nil. Up to the sixteenth century, even, scientific progress was at the least slow. Recently it has been rapid—none too rapid, but rapid. The rate of advance depends upon the activities and energies of each

generation and upon the organisation and machinery which it has inherited from its immediate forebears.

The pioneers who created the S.P.R. have left it in trust with us to hand it on to future generations an efficient and powerful machine for the spread of scientific truth, and for the advancement of scientific knowledge in a direction overgrown with thickets of popular superstition, intermixed with sandy and barren areas of resolute incredulity. We have to steer our narrow way between the Scylla of stony minds with no opening in our direction, and the Charybdis of easy and omnivorous acceptance of every straw and waif whether of truth or falsehood that may course with the currents of popular superstition.

Realising this to be our duty, and perceiving that we have a long period of danger and difficulty before us, it has become evident to persons of clear vision that the Society must be established on a sound and permanent basis, and must endeavour to initiate an attitude of regarding the psychical sciences as affording the same sort of scope to a career, the same sort of opportunities of earning a livelihood, as do the longer recognised sciences,—those which are more specifically denominated "natural," because of the way they fit into our idea of the scheme of nature as by us at present recognised, or at any rate because they deal with facts to which we have gradually grown accustomed.

Any young man who wishes to make money should be warned off the pursuit of pure science at the outset. People who enter the field with that object in view will do neither themselves nor science any good. A certain amount of enthusiasm and pioneering proclivity is essential, but fortunately that has never yet been wanting in our race; witness the hardships willingly entered upon, and the risks run, in Arctic or Antarctic exploration, for nothing more than a living wage. A living wage is however to many a necessity. It has always been recognised that those who labour at the altar should live by the altar; and a minimum of provision for bread and homely needs ought to be at the disposal of a Society like this where-with to enable a person of ability and enthusiasm to undertake the prosecution of our researches in a definite and continuous and so to speak professional manner. Hitherto we have

depended on the spontaneous and somewhat spasmodic work of amateurs, often of wealthy amateurs, before whose minds such questions as salary never even momentarily pass. We shall always have need of services such as theirs. In the more orthodox sciences, in Physics for instance, it has been notorious that throughout last century the best work has often been done by people who having the means of living otherwise secured to them were able to devote their time, and often considerable means too, to the prosecution of research. There has been no rule either way. Some of the leaders have been paid a small salary, like Faraday: others have had independent means, like Joule. Always I say we shall depend upon and be grateful for the spontaneous work and help of people of means, but we must not depend solely upon that, else will young people of genius be diverted by sheer force of circumstance into other channels, and our nascent science will lose the benefit of their powers and continuous work.

I have had the pleasure of communicating, to the Annual General Meeting of the Society this afternoon, the fact that a few friends who desire to remain anonymous have started an endowment fund in order to achieve this object, in order to set the Society upon a sound financial basis, and in order to provide the material means of attacking the problems which the future may bring before us. Member A has given us £750, member B £250, the Society has transferred £1000 from the legacy of Dr. Arthur Myers, and a trust deed has been drawn up and approved by the Council, whereby the Society accepts these donations and others which we hope may be forthcoming,¹ and determines to accumulate them until the sum of £8000 at least has been reached, or until a certain specified time elapses, whichever event happens first. As soon as a *minimum* capital sum of £8000 has been attained, it will be permissible to offer a Research Scholarship in Psychological Science, to which a holder irrespective of sex or nationality may be appointed for one year, and from year to year as may seem good, his or her time to be devoted to the work of psychical investigation.

If we had more means more might be done; a much-

¹ A legacy of £3805 has since been left to the Society by Mr. A. N. Aksakoff.

needed laboratory, with special appliances such as I foreshadowed some years ago, might be erected; but this is to be the beginning. This is not an appeal to people to increase or supplement their subscriptions, such as was recently issued, in order to meet our ordinary working expenses and enable us to employ an Organising Secretary and to take what I think you will agree with me in calling improved offices. The need for ordinary subscriptions and new members continues, and it should be clearly represented to all persons interested in our work that we should welcome them if they will join the Society, and that we apply no test save the test of sympathy and sanity. But the movement I now report has new and additional objects: it is the establishment of an endowment fund to place the Society on a sound and permanent basis and enable it before long to begin prosecuting its work with greater ardour, and especially with greater regularity.

We cannot always depend on spontaneous cases alone. They are most important and are often extremely valuable instances of a spontaneous and purposeful exercise of the faculty we are investigating, and it would be a great mistake to suppose that we have had enough of them. It is essential that we be kept informed of recent well-attested cases, especially of apparitions at or near the time of death; but we shall not make progress in understanding the laws of the phenomena and in disentangling their deeper meaning if we confine ourselves to observation alone. We must experiment, we must endeavour to produce and examine phenomena as it were in a laboratory and submit them to minute investigation.

For instance there is the question of so-called spirit photography, there are asserted levitations and *apports* and physical movements, none of which have been subjected to adequate scientific examination; many such cases have been examined and found fraudulent, and there is great difficulty in obtaining the phenomena under prescribed and crucial conditions; but until these things have been submitted to long-continued scientific scrutiny they will make no undisputed impression, they will be either improperly accepted or improperly rejected, and will continue in that nebulous hazy region, the region of popular superstition, from which it is the

business of this Society to rescue them: raising them on to the dry land of science, or submerging them as impostures in the waters of oblivion. And I may say parenthetically that we do not care one iota which alternative fate is in store for them: we only want the truth.

Now I know that some few of our members are impatient of such an investigation and decline to see any need for it. They feel that if they have evidence enough to justify their own belief, further enquiry is superfluous.

These have not the scientific spirit, they do not understand the meaning of "law." A fact isolated and alone, joined by no link to the general body of knowledge, is almost valueless. If what they believe is really a fact, they may depend upon it that it has its place in the cosmic scheme, a place which can be detected by human intelligence; and its whole bearing and meaning can gradually be made out.

A still smaller class of persons may of course take the purely selfish view that what they have already learnt is sufficient for them, and they will help us no further. To such I do not speak, except to point out to them that their attitude is selfish. Real knowledge, like real wealth of any kind, cannot be wrapped up thus, it pines for reproduction, for increase: "how am I straightened till it be accomplished"; the missionary spirit, in some form or other, is inseparably associated with all true and worthy knowledge. Think of a man who, having made a discovery in Astronomy,—seen a new planet, or worked out a new law,—should keep it to himself and gloat over it in private. It would be inhuman and detestable miserliness; even in a thing like that of no manifest importance to mankind. The only excuse would be if he lived so much in advance of his time that, like Galileo with his newly invented and applied telescope, he received nothing but rebuffs and persecution for the publication of his discoveries. But even so, it is his business to brave this and tell out what he knows; still more is it his business so to act upon the mind of his generation as to convert it gradually to the truth, and lead his fellows to accept what now they reject.

Those who believe themselves the repositories of any form of divine truth should realise their responsibility. They are

bound in honour to take such steps as may wisely cause its perception and recognition by the mass of mankind. They are not bound to harangue the crowd from the nearest platform: that might be the very way to retard progress and throw back the acceptance of their doctrine. The course to pursue may be much more indirect than that. The way may be hard and long, but to the possessor of worldly means it is far easier than to another. If the proper administration of his means can conduce to the progress of science, and to the acceptance by the mass of mankind of important and vivifying knowledge of which they are now ignorant, then surely the path lies plain.

The inauguration of this endowment fund, of which I announce a nucleus to-day, makes it possible and easy for persons without leisure, but with means and enlightenment, to assist their fellows by ensuring a continuation and extension of investigation into the more unconscious and less recognised mental operations.

But still it will be asked, Why investigate further when we are already convinced? of telepathy for instance,—it may be said,—you yourself are convinced of that. Why do you want us to conduct experiments in that? Hypnotism again: An excellent paper was read a few weeks ago to the Society on certain aspects of hypnotism; but hypnotism is an accepted medical fact. Why waste time in making further experiments on its manner and its bearing?

Alas, here again the effect of the lack of scientific education in the schools of England is painfully prominent. Effective knowledge concerning anything can only be the result of long-continued investigation, and belief in the possibility of a fact is only the very first step. Until there is some sort of tentative belief in the reasonable possibility of a fact there is no investigation,—the scientific priest and Levite have other business, and pass by on the other side. And small blame to them: they cannot stop to investigate everything that may be lying by the roadside. If they had been sure that it was a fellow creature in legitimate distress they would have acted differently. Belief of a tentative kind will ensure investigation, not by all but by some of the scientific travellers along the road; but investigation is

the prelude to action, and action is a long process. Some one must attend to the whole case and see it through. Others, more pressed for time, may find it easier to subscribe their two pence to an endowment fund, and so give indirect but valuable assistance.

But once more the question is reiterated, Why investigate that of which we are sure? Why seek to confirm that of which we already have conviction? Why value well-evidenced narratives for instance of apparitions at times of death or catastrophe, when so many have already been collected in *Phantasms of the Living*, and when careful scrutiny by Mrs. Sidgwick proved that they could not be the result of chance coincidence?¹ There is a quite definite answer to this question, which I wish to commend to the consideration of those who feel this difficulty or ask this sort of question.

The business of science is not belief but investigation. Belief is both the prelude to and the outcome of knowledge. If a fact or a theory has had a *prima facie* case made out for it, subsequent investigation is necessary to examine and extend it.

The object of investigation is the ascertainment of law, and to this process there is no end. What, for instance, is the object of observing and recording earthquakes, and arranging delicate instruments to detect the slightest indication of earth tremor? Every one knows that earthquakes exist, there is no scepticism to overcome in their case; even people who have never experienced them are quite ready to believe in their occurrence. Investigation into earthquakes and the whole of the motile occurrences in the earth's crust, is not in the least for the purpose of confirming faith, but solely for the better understanding of the conditions and nature of the phenomena; in other words, for the ascertainment of law.

So it is in every branch of science. At first among new phenomena careful observation of fact is necessary, as when Tycho Brahe made measurements of the motion of the planets and accumulated a store of careful observations. Then came

¹ See the Report of Professor Sidgwick's Committee, *Proceedings S.P.R.*, Vol. x. p. 394.

the era of hypothesis, and Kepler waded through guess after guess, testing them pertinaciously to see if any one of them would fit all the facts: the result of his strenuous life-work being the three great laws which for all time bear his name. And then came the majestic deductive epoch of Newton, welding the whole into one comprehensive system; subsequently to be enriched and extended by the labours of Lagrange and Laplace; after which the current of scientific enquiry was diverted for a time into other less adequately explored channels.

For not at all times is everything equally ripe for enquiry. There is a phase, or it may be a fashion, even in science. I spoke of geographical exploration as the feature of Elizabeth's time. Astronomical enquiry succeeded it. Optics and Chemistry were the dominating sciences of the early part of the nineteenth century, Heat and Geology of the middle, Electricity and Biology of the later portion. Not yet has our branch of psychology had its phase of popularity; nor am I anxious that it should be universally fashionable. It is a subject of special interest, and therefore perhaps of special danger. In that respect it is like other studies of the operations of mind, like a scientific enumeration of the phenomena of religion for instance, like the study of anything which in its early stages looks mysterious and incomprehensible. Training and some admixture of other studies are necessary for its healthy investigation. The day will come when the science will put off its foggy aspect, bewildering to the novice, and become easier for the less well-balanced and more ordinarily-equipped explorer. At present it is like a mountain shrouded in mist whose sides offer but little secure foothold, where climbing, though possible, is difficult and dangerous.

As a Society we exist to curb rash and inexperienced novices, and to support trusted and experienced climbers by roping ourselves together so that we may advance safely and in unison, guarding ourselves from foolhardy enterprises, but facing such legitimate difficulties as lie in our path, and resolved that, weather and uncontrollable circumstances permitting, our exploration shall continue, and the truth, whatever it may be, be ascertained.

The assuring ourselves as to facts is one of our duties, and it is better to hesitate too long over a truth than to welcome an error, for a false gleam may lead us far astray unless it is soon detected.

Another of our duties is the making and testing of hypotheses, so as gradually to make a map of the district and be able to explain it to future travellers. We have to combine the labours of Tycho with those of Kepler, and thus prepare the way for a future Newton; who has not yet appeared above the psychical horizon.

His advent must depend upon how far we of this and the next few generations are faithful to our trust, how far we work ourselves, and by our pecuniary means enable others to work; and I call upon those who are simultaneously blessed with this world's goods and likewise inspired with confidence in the truth and value of mental and spiritual knowledge, to bethink themselves whether, either in their lifetime or in their wills, they cannot contribute to the world's progress in a beneficent way, so as to enable humanity to rise to a greater height of aspiration and even of religion; as they will if they are enabled to start with a substantial foundation of solid scientific fact on which to erect their edifice of faith.

If it be said, but why should investigation be expensive? I would ask you to look round and think what is expended on the investigation of the orthodox sciences. Before Columbus' voyage could be undertaken, the Courts of Europe had to be appealed to for funds. Before astronomical discoveries can be made, large observatories and costly telescopes have to be provided; and not one only, but many, so that by collaboration of observers in many parts of the world the truth may be ascertained.

Look at the expense of biological and ethnological exploration to-day. Think of the highly equipped physical laboratories, one of which is maintained at every College or University in the civilised world. And of chemical laboratories,—remember that every large commercial chemical manufacturing firm in Germany maintains a band of trained and competent chemists, always investigating, in the hope of a new compound or a new process or some little profitable improvement.

Money is not scarce, and if people realised the interest of science to the human race it would be poured out far more lavishly than it is at present. Certain small special sums are now provided for the investigation of disease. The origin of Malaria has been traced, and this disease has some chance of being exterminated, so that the tropical belt of the earth may become open to white habitation. Cancer is being pursued to its lair, without success so far; but funds for researches such as these are bound to be forthcoming. I read in the papers only this week a magnificent donation for the purpose of investigating cancer, a large portion of a million, attributed to Mr. Rockefeller, founder of Chicago University.

That is the scale on which to do things with effect. When practical benefits can be definitely foreseen, people feel justified in spending money even on Science; though as a rule that and education are things on which they are specially economical. Municipal extravagance in any such things as those is sternly checked, though in other directions it is permitted.

And why should not psychical investigation lead to practical results? Are we satisfied with our treatment of criminals? Are we as civilised people content to grow a perennial class of habitual criminals, and to keep them in check only by devices appropriate to savages; hunting them, flogging them, locking them up, exterminating them? Any savage race in the history of the world could do as much as that: and if they know no better they are bound to do it for their own protection. Society cannot let its malefactors run wild, any more than it can release its lunatics. Till it understands these things it *must* lock them up, but the sooner it understands them the better; an attempt at comprehension is being made by criminologists in Italy, France,¹ and elsewhere. Force is no remedy: intelligent treatment is. Who can doubt but that a study of obscure mental facts will lead to a theory of the habitual criminal, to the tracing of his malady as surely as malaria has been traced to the mosquito? And once we understand the evil the remedy will follow. Already hypnotic treatment, or treatment by suggestion, occurs to one. The fact of imprisonment ought to lend itself to brilliant attempts at reform. It is a

¹ *E.g. Bulletin de l'Institut Général Psychologique*, dirigé par Dr. Pierre Janet; Décembre 1902, p. 225.

great advantage to doctors to have their patients collected compactly in a hospital; and without it medical practice would languish. It ought to be a similar advantage to have criminals herded together in gaols, and lunatics in asylums. It is unwise and unscientific to leave prisoners merely to the discipline of warders and to the preaching of chaplains. That is not the way to attack a disease of the body politic. I have no full-blown treatment to suggest, but I foresee that there will be one in the future. Society will not be content always to pursue these methods of barbarism; the resources of civilisation are not really exhausted, though for centuries they have appeared to be. The criminal demands careful study on the psychical side, and remedy or palliation will be a direct outcome of one aspect of our researches. The influence of the unconscious or subliminal self, the power of suggestion, the influence of one mind over another, the phenomena of so-called 'possession,' these are not academic or scientific facts alone: they have a deep practical bearing, and sooner or later it must be put to the proof.

One of the things I want to impress upon all Members and Associates and beg them to spread, wherever they have any influence, among persons who being supernormally gifted may expect to experience facts and sensations worth recording, is that too much care cannot be expended in getting the statements exact. Exact in every particular, especially as regards the matter of *time*. In recording a vision or an audition or some other impression corresponding to some event elsewhere, there is a horrible tendency to try to coax the facts to fit some half-fledged preconceived theory and to make the coincidence in point of time exact.

Such distortions of truth are misleading and useless. What we want to know is exactly how the things occurred, not how the impressionist would have liked them to occur, or how he thinks they ought to have occurred. If people attach any importance to their own predilection concerning events in the Universe, they can set them forth in a footnote for the guidance of any one who hereafter may think of starting a Universe on his own account: but such speculations are of no interest to us who wish to study and understand the

Universe as it is. If the event preceded the impression, by all means let us know it, and perhaps some one may be able to detect some meaning in the time-interval, when a great number of similar instances are compared hereafter. If the impression preceded the event, by all means let us know that too, and never let the observation be suppressed from a ridiculous idea that such anticipation is impossible. Nor let us exclude attested physical phenomena from a historical record, on any similar ground of impossibility. We want to *learn* what is possible, not to have our minds made up beforehand and distort or blink the facts to suit.

If the correspondence in time is exact, then let future students be able to ascertain that also from the record; but let not the recorder make any remark about "allowing for difference of longitude" or anything of that kind, unless indeed he is an astronomer or some one who thoroughly understands all about "time." Arithmetic of that sort can be left to those who subsequently disentangle and criticise the results. The observer may of course amuse himself in that and other ways privately, but nothing of it should appear in the record. That should be accurate and cold-blooded and precise. Sentences indicating contemporary emotion, in so far as that is part of the facts to be recorded, are entirely in place; but ejaculations of subsequent emotion, speculation as to the cause, or moralisation as to the meaning, are out of place. It may be said that these do no harm, and can easily be ignored by a future student; and that is so in one sense, but their atmosphere is rather apt to spoil the record, to put the recorder into an unscientific frame of mind, and, even when they have biassed him no whit, to suggest to a subsequent reader that they may have biassed him, and so discount unfairly the value of his record.

With respect to the important subject of possible prediction, on which our ideas as to the ultimate nature of time will so largely depend, every precaution should be taken to put far from us the temptation or the possibility of improving the original record after the fact to which it refers has occurred, if it ever does occur; and to remember that though we have done nothing of the sort, and are in all respects honest, and known to be honest and truthful, yet the

contrary may be surmised by posterity or by strangers or foreigners who did not know us; and even our friends may fancy that we did more than we were aware of, in some access of somnambulic or automatic trance. Automatic writers for instance must be assumed open to this suspicion, unless they take proper precautions and deposit copies of their writings in some inaccessible and responsible custody; because the essence of their phenomena is that the hand writes what they themselves are not aware of, and so it is an easy step for cautious critics to maintain that it may also have written *when* they were not aware of it.

The establishment of cases of real prediction, not mere inference, is so vital and crucial a test of something not yet recognised by science that it is worth every effort to make its evidence secure.

Another thing on which I should value experiments is the detection of slight traces of telepathic power in quite normal persons, in the average man for instance, or rather more likely perhaps, in the average child. The power of receiving telepathic impressions *may* be a rare faculty existing only in a few individuals and in them fully developed; but it is equally possible, and, if one may say so, more likely, that what we see in them is but an intensification of a power which exists in every one as a germ or nucleus. If such should be the fact, it behoves us to know it; and its recognition would do more to spread a general belief in the fact of telepathy—a belief by no means as yet universally or even widely spread—than almost anything else.

The method that has been suggested is to offer to a percipient the choice of one out of two things, and to see whether in multitudes of events the predetermination of a bystander as to which shall be chosen, exerts any influence whatever on the result. Many devices can be made for carrying this out, but experiments of greater interest and novelty will be made if the devices are left to individual ingenuity and experience. Leisure, and patience, and system, and industry, are the requisites: and if I do not myself practise what I preach, in this and other particulars, it is because whatever I may lack of the others I am at present conspicuously lacking in the first of these essentials.

There are many topics on which I might speak: one is the recent advance in our knowledge of the nature of the atom of matter, and the discovery of facts which one would think must have some bearing,—some to me at present quite unknown bearing,—on the theory of what are called physical phenomena; but I am speaking on this subject in the summer at Oxford in the Romanes lecture,—I mean the subject of the nature of matter, not its bearing upon our researches, for on the latter I have at present no useful ideas,—so I will not mention it further here and now, except to call the attention of all educated persons to the intense interest of this most recent purely scientific subject.

On another topic I might say a few words, viz., on the ambiguity clinging round the phrase “action at a distance,” in connection with telepathy. Physicists deny action at a distance, at least most of them do. I do for one. At the same time I admit telepathy. Therefore it is supposed I necessarily assume that telepathy must be conducted by an ethereal process analogous to the transmission of waves. That is however a *non-sequitur*. The phrase “action at a distance” is a technical one. It signifies that no physical force is exerted save through a medium. There must either be a projectile from A to B, or a continuous medium of some kind extending from A to B, if A exerts force upon B, or otherwise influences it by a physical process.

But what about a psychical process? There is no such word in physics; the term is in that connection meaningless. A physicist can make no assertion on it one way or the other. If A mesmerises B, or if A makes an apparition of himself appear to B, or if A conveys a telepathic impression to B; is a medium necessary, then? As a physicist I do not know: these are not processes I understand. They may not be physical processes at all.

Take it further: A thinks of B, or A prays to B, or A worships B;—is a medium necessary for these things? Absolute ignorance! The question is probably meaningless and absurd. Spiritual and psychical events do not enter into the scheme of Physics, and when a physicist denies “action at a distance” he is speaking of things he is

competent to deal with,—of light and sound and electricity and magnetism and cohesion and gravitation. He is not, or should not be, denying anything psychical or spiritual at all. All the physical things, he asserts, necessitate a medium; but beyond that he is silent. If telepathy is an ethereal process, as soon as it is proved to be an ethereal process, it will come into the realm of physics; but till then it stays outside.

There are rash speculators who presume to say that spiritual and psychical and physical are all one. To me it seems that the instinct for simplification has run away with them, that they are trespassing out of bounds and preaching what they do not know, eking out a precarious ignorance with cheap dogmatism.

I find I have omitted to say anything on one topic at which I hinted in an earlier portion of my Address, viz., the bearing of our enquiry on religion. It is a large subject and one too nearly trenching on the region of emotion to be altogether suitable for the consideration of a scientific Society. Yet every science has its practical applications, and though they are not part of the science, they are its legitimate outcome, and the value of the science to humanity must be measured in the last resort by the use which humanity can make of it. To the enthusiast, science for the sake of knowledge, without ulterior ends, may be enough,—and if there were none of this spirit in the world we should be poorer than we are;—but for the bulk of mankind this is too high or too arid a creed, and people in general must see just enough outcome to have faith that there may be yet more.

That our researches will ultimately have some bearing, some meaning, for the science of Theology, I do not doubt. What that bearing may be I cannot tell. I have indicated in an article in the *Hibbert Journal* for January part of what I feel on the subject, and I have gone as far in that article as I feel entitled to go. We seek to unravel the nature and hidden powers of man; and a fuller understanding of the attributes of humanity cannot but have some influence on our theory of Divinity itself.

If any scientific Society is worthy of encouragement and support it should surely be this. If there is any object worthy the patient and continued attention of humanity, it is surely these great and pressing problems of *whence, what,* and *whither,* that have occupied the attention of Prophet and Philosopher since time was. The discovery of a new star, or of a marking on Mars, or of a new element, or of a new extinct animal or plant, is interesting: surely the discovery of a new human faculty is interesting too. Already the discovery of "telepathy" constitutes the first-fruits of this Society's work, and it has laid the way open to the discovery of much more. Its aim is nothing less than the investigation and better comprehension of human faculty, human personality, and human destiny.

XIX.

By SIR WILLIAM F. BARRETT, F.R.S.

January 29th, 1904.

My first duty is to thank you most heartily for the honour you have conferred upon me to-day. When I recall the names of the illustrious men who have preceded me in this chair, I can only ask your indulgence for the deficiencies of which I am very conscious and express the hope that our Society may not suffer from having chosen as its President one from a remote distance, and who can lay no claim to the eminence of his predecessors.

It has not been the custom formally to move a vote of thanks to our out-going President, but I am sure you would desire me to voice the grateful appreciation, which we all sincerely feel, of the great services which Sir Oliver Lodge has rendered to the Society during his three years' tenure of office. In his presence I cannot express all I would like to say, but this much perhaps he will permit, that during his Presidency, his influence and high position in the ranks of science have been of inestimable value to the Society, whilst his simple and unaffected courage has been a noble stimulus to us all.

Here too, perhaps, you will allow me to say how much we owe to the ungrudging and arduous labour of our Hon. Sec. Mr. Piddington, and to the skill and care with which our Hon. Treasurer Mr. H. A. Smith has, almost from the foundation of the Society, conducted its finances, and to the legal advice and assistance, in the incorporation of the Society and other matters, which Mr. Smith and Mr. S. C. Scott have freely given to us. Though I am quite sure they would deprecate any allusion to their services, yet I know you will join with me in expressing our most grateful and cordial thanks to each and all of these gentlemen.

This month we enter upon the 23rd year of our existence, and in spite of the irreparable losses we have suffered in the past through the removal from this life of those who seemed to be the very pillars on which the Society rested,—Gurney, Sidgwick, Myers,—losses which naturally gave rise to many gloomy forebodings—nevertheless we have no reason for despondency, on the contrary the present flourishing condition of our Society far exceeds that which even I, the most sanguine of its founders, could have anticipated. Both numerically and financially we are stronger than we have at any time been; the number of our Members and Associates throughout the United Kingdom, after eliminating all losses through death, etc., is 832; in addition we have 530 Members and Associates in the American Branch, and on the Continent kindred societies are springing up.

As you will see by the printed statement of accounts, our financial condition is also satisfactory, and we have in addition, thanks to a generous legacy, a considerable reserve fund, which we hope the liberality of our members will increase. The Council have placed this reserve fund in the hands of Trustees and have determined to appropriate the interest of it, when it reaches the sum of £8000, to the purpose of experimental research in such subjects as fall within the scope of our Society.

It is true that no original research of any value can ever be made to order. The progress of knowledge in psychical science, as elsewhere, must in the end rest upon the self-sacrificing and intelligent work of those in whom a keen interest for a particular branch of enquiry has been excited, and whose enthusiasm is not stimulated by, nor can it be repaid in, coin

of the realm. But the investigator has to live, and to enable him to do so whilst he is conducting any hopeful enquiry, sanctioned by the Council, a modest sum will be appropriated to him as a grant in aid.

We hope to receive from time to time applications from competent enquirers of either sex who will undertake special lines of investigation. It might also be desirable, though here I speak my own opinion only, to follow the examples of the older scientific societies and award medals or premiums for any good piece of original work. There is an immense field for investigation; psychical research is almost virgin ground as far as strict scientific enquiry is concerned, and though the worker is not likely in this generation to meet with much encouragement from the world at large, and still less any benefit to himself, he may be sure his toil will not be in vain. I would therefore earnestly appeal to any members or friends of our Society to give us what help they can; if personal assistance is not possible, their contributions to the completion of our research fund will be gratefully welcomed.¹

And this brings me to a point to which for a moment it is desirable to refer. The work of the Society has hitherto been in comparatively few hands, and the centre of gravity of the Society inevitably falls in that place (such as Cambridge) where the most active workers are or have been found. This has led some of our members to feel perhaps a little aggrieved that the centre is not within their own precincts, that they are not more in touch with the work of the Society, and that matters of great interest may be occupying attention at headquarters and yet no information may reach them. If this represents any general feeling, is not the remedy to be found in wider and more earnest co-operation in our work on the part of the members generally? The *Journal* of the Society was established to encourage this and to be an organ of communication between the members. I should be glad to see it more freely used for this purpose, and for the speedy publication of any first-hand evidence that our members may possess;

¹ In consequence of this appeal two members of the Society wrote to me that they would contribute £50 each if eighteen others would do the same so as to make up £1000 in the present year; £113 3s. has since been received, and perhaps some readers may feel moved to contribute towards the completion of the sum.

and also for the prompt communication of information from headquarters which would be of interest to members generally. I hope, therefore, without any departure from the caution and reserve, which are so necessary in dealing with the phenomena that engage our attention, we may be able to have a more frequent interchange of thought and opinion between the Council and the body of our members, and I shall be glad if I can be of any service in promoting this.

As regards wider co-operation in our work, I would venture to suggest *local groups* should be formed, meeting weekly or monthly for investigation or discussion.¹ If you ask me what work can be done by these local groups, a beginning might be made in the determination of two problems, which though they may be simple and dull, are nevertheless of considerable importance, and which can only be settled by wide-spread assistance.

One of these problems may be stated thus:

(1) Assuming the existence of telepathy, is the transference of thought from one person to another independently of the recognised channels of sensation, a faculty in some slight degree possessed *by all*, or is it confined only to a few? Prof. Richet and others have made experiments on this question, but it is still an open one. It is very easy to devise methods of experiments between two persons, choosing the simplest form, such as tossing a coin, and noting whether the right guesses in, say every 100 trials, somewhat exceed the number which chance alone would indicate. But patience is necessary in all investigations to make the result of any value, and also precautions with which no doubt you are familiar, such as the avoidance of facial or other indications. There are other questions in connection with telepathy which need elucidation to which I will refer presently.

The other problem is:

(2) To what extent is motor-automatism common among mankind? By motor automatism is meant the purposive movement of one's voluntary muscles without any intention or conscious effort on our part. The simplest and most sensitive

¹No member of the Society has done more in this direction than Colonel Taylor, R.E., and I hope his example and admirable method of investigation will be widely followed.

test is to hold a forked twig in your hand after the manner of a dowser, and see if the twig curls up of its own accord when you walk round your garden, or go in search of some hidden object. Some one or more members of your investigating circle will probably succeed, in spite of their incredulity. Now it is important to know (1st) the percentage of success among all our friends, and (2nd) whether other phenomena of motor automatism occur with the same individual, such as the movement of the pendule explorateur, automatic writing, etc., and (3rd) whether these movements are merely fortuitous, or whether they are veridical, that is to say, do they give us truth-telling information of something the individual could not have ascertained by the use of his ordinary perceptive powers?

Now these problems require the willing co-operation of a number of intelligent investigators, but they do not require costly apparatus nor any particular training beyond that of careful observation; nor are these experiments in the least injurious to the operator, nor likely to excite any opposition even from a hyper-sensitive conscience. It is true they may seem trivial and tiresome: if any person think so, I am afraid they would think the details of all scientific investigation trivial and tiresome. The work of a bricklayer or a hodman in building a house would seem to be very monotonous, if we did not regard the end in view.

I am sometimes asked what our Society has already achieved, what has it done to justify its existence? The reply to this is found in the eighteen closely printed volumes of our *Proceedings*, and the eleven volumes of our *Journal*, containing an immense mass of evidence, the record of carefully sifted observations or of stringent experiments. These form a store-house of material which we have every reason to believe will become increasingly valuable to students both of psychology and philosophy in the not distant future. Unquestionably a change of opinion is gradually coming about through the work of our Society. The widespread and unreasoning prejudice which 25 years ago existed against all psychical enquiry is breaking down. This is seen in the list of distinguished men who have become members of our society, and here I desire to

welcome one of our great English savants, a man of European reputation, who has recently joined our ranks, and this coincidentally with his election to the high position of joint Hon. Secretary to the Royal Society.

But although there is a more open mind on the part of science towards psychical research, it must be confessed it is still looked at somewhat askance by the leaders and organs of official science. It is worth a moment's attention to consider why this should be. No one asserts that the knowledge we are seeking to obtain is unimportant, for as the learned Dr. Glanville said 200 years ago about similar subjects to those we are studying, "These things relate to our biggest interests; if established they secure some of the outworks of religion." Nor, so far as I know, does any one assert we are hasty and incautious, or unscientific in our method of investigation. No doubt one reason for the present attitude of official science towards us has been the prevalence and paralysing influence of a materialistic philosophy, which denies the possibility of mind without a material brain, or of any means of access from other minds to our mind except through the recognised channels of sensation. Both these propositions are of course denied by our religious teachers, who assert that a spiritual world does exist, and that the inspired writings were given supersensuously to man. Nevertheless as a body, though with some notable exceptions, even *they* do not welcome us with open arms. The common ground and official view of both science and religion is that all extension to our existing knowledge in their respective departments can only come through the channels recognised by each; in the one case the channel is bounded by the five senses, and in the other case it is that sanctioned by authority. We must all admit that even unconsciously authority has a large share in moulding our convictions and determining our conduct, in fact we cannot emancipate ourselves from its subtle influence. As a rule this is beneficial, unless it can be shown that authority is untrustworthy; but the attempt to prove that it is so is sure to be an ungracious and difficult task, and almost certain to bring odium to bear upon those who, if they eventually prove to be right, are in a subsequent generation hailed as benefactors of the race.

Some years ago that most learned man, the late Prof. von

Helmholtz, visited Dublin. I had then recently published a paper giving for the first time *prima facie* evidence of something new to science, called thought-transference, now known as telepathy. Helmholtz, who was a great physiologist as well as physicist, had some conversation with me on the subject, and he ended by saying: "I cannot believe it. Neither the testimony of all the Fellows of the Royal Society, nor even the evidence of my own senses, would lead me to believe in the transmission of thought from one person to another independently of the recognised channels of sensation. It is clearly impossible." The respect that is due to so great a man renders it necessary to show in a few words why this statement (one that used to be common enough) is wholly indefensible. First, the phenomena in question, and all the phenomena within the scope of our Society, are not *contradictions*, but merely extensions of our existing knowledge; they may be strange and inexplicable, but that merely indicates that the evidence in support of the new facts must be recognised as *adequate*. As Laplace long ago said in his *Theory of Probabilities*: "We are so far from knowing all the agents of nature, and their various modes of action, that it would not be philosophical to deny any phenomena merely because in the actual state of our knowledge they are inexplicable. This only ought we to do—in proportion to the difficulty there seems to be in admitting the facts should be the scrupulous attention we bestow on their examination."¹ That this is the true spirit may be seen from the recent discoveries in connection with Radium. These facts appeared even to contradict some of our previous knowledge. We always thought of an atom, as Lucretius did, "strong in solid singleness," as the most immutable and immortal thing in the physical universe. Now it appears to be capable of disintegration and transmutation, and the views of the alchemists are beginning to revive: soon we may be looking for the "philosopher's stone"—the substance that by its presence enables the transmutation of other heavy atoms to come about. Thus does the whirligig of time bring its revenges.

But to return. There is another fallacy in the scientific view expressed by Helmholtz. He said, as many do, that nothing could make him believe in such phenomena. But belief is not

¹Laplace, *Théorie Analytique des Probabilités*, Introd., p. 43.

a voluntary act of the mind, it cannot be given or withheld at pleasure; it is, obviously, an involuntary state, which follows if our judgment considers the evidence adduced both adequate and conclusive. We can, of course, as many do, refuse to listen to the evidence; and it is worth noticing that in all our minds there is a tendency to repel the intrusion of any ideas unrelated to our usual habits of thought, and which therefore involve an uncomfortable dislocation of our mind: so that attention to evidence of this character is a difficult act of self-conquest. Hence every new departure in thought has to encounter great mental inertia, and wisely so, as preventing hasty and foolish aberrations of mind. But when attention is given, and the evidence considered adequate, it is sheer nonsense to say you won't believe it.

Is there then any other ground why science should not ungrudgingly recognise the evidence so amply given in our Proceedings? I have recently made enquiries among some of my scientific friends who stand aloof from us, to know what is their reason for so doing. Of course life is short, the claim of each particular branch of scientific investigation becomes increasingly exacting, and but few have time to consider the evidence. That is obvious, but why do they shrug their shoulders when you mention, say, telepathy, or the faculty of dowsing? Their attitude reminds me of an anecdote told by that remarkable woman, Miss Caroline Fox, and which I think is mentioned in the memorials of her life. The charming residence of Miss Fox in Cornwall was the meeting ground of many famous men of the last generation. On one occasion that great Irishman, Sir W. Rowan Hamilton, there met Sir G. Airy, the then Astronomer-Royal. Hamilton had just published his famous mathematical discovery of quaternions, and was, I believe, explaining it to Airy. After a short time Airy said, "I cannot see it at all." Hamilton replied, "I have been investigating the matter closely for many months, and I am certain of its truth." "Oh," rejoined Airy, "I have been thinking over it for the last two or three minutes, and there is nothing in it." This is why some of our scientific friends shrug their shoulders at our researches. They feel competent, after a few minutes' consideration, to reject conclusions which may have cost us years of investigation.

In fact, nine-tenths of the positive opinions we are accustomed to hear about psychical research are given *judicially*. That is, the objector speaks of his conclusions as positively as if it were his office to know the truth, and implies that any opposition is a thing for *him* to judge of. "He is annihilated," as Professor De Morgan pointed out some time ago, "by being reduced, no matter how courteously, from judge to counsel. But this is what must be done. The jurisdiction must be denied. The great art is not to pull him off the bench without ceremony, but to pull the bench from under him, without his exactly seeing how he came to tumble, and without proceeding to sit upon it yourself."

Enquiry among my scientific friends has shown me that the root of much, perhaps most, of the scientific scepticism towards our work is not because the phenomena are startling or inexplicable, but because they cannot be repeated at pleasure; hence so very few scientific men have the opportunity of verifying the observations some of us have made. They do not doubt our good faith, but they think we may have been mistaken in our conclusions, and until we can reproduce the phenomena before them, they feel justified in distrusting our results. This might well give ground for suspense of judgment, but surely not for any hostile attitude. It is, of course, most desirable to be able to repeat our experiments at pleasure, but the very nature of our enquiry precludes this. We do not refuse to believe in the fall of meteoric stones unless we can see one falling. We may require a good deal of well-attested evidence for their fall, but, once the fact is established, the stringency of the evidence demanded immediately relaxes. Now, unquestionably there are at present more capable witnesses who can speak from personal and careful enquiry as to the fact of telepathy, or of what is called spiritualistic phenomena, than there are persons living who can testify to having seen the actual fall from space of meteoric stones.

The fact is, our scientific friends do not realise the profound difference that exists between the conditions of a physical and of a psychical experiment. We know what conditions are requisite in the former case, we do *not* know what they are in

the latter, and hence the difficulty of all psychical investigation and the uncertainty of the reproduction of any given phenomenon.

A moment's consideration shows that the demand made upon us by science for the demonstration at any moment of a particular psychical phenomenon is inconsistent with the very object of our enquiry. Psychical experiments depend on the mental state of the subject; you may tell a person to do something, but whether he does it or not depends on the person addressed. Physical experiments are independent of our volition; a magnet attracts iron, or sets itself in the magnetic meridian, irrespective of our mental condition. This obvious difference between the two sets of phenomena is constantly overlooked. Physical science excludes from its survey the element of personality, with which we have to deal and over which we have little or no control. It regards all phenomena as strictly impersonal, and finds abundant field for investigation within the narrow limits it has marked out for itself: these things it regards as real, the rest as shadowy. The truth is, of course, exactly the reverse. The reality of which we are conscious is our self, our personality. It is the phenomena of external nature which are shadowy; shadows cast by some reality of which our senses tell us absolutely nothing.

There is, however, no reason why the methods so successfully pursued by science should not also be pursued in the study of the complex and shifting phenomena of human personality. Now this is precisely the object of our Society—the accurate investigation of that wide range of obscure but wonderful powers included within the mysterious thing we call ourself. Albeit we are but at the beginning of a task so vast that it may, in time to come, make all the discoveries of physical science seem trivial, all its labours seem insignificant in comparison with the stupendous problems that are before us.

We need, therefore, much more experimental evidence in every department of our work. So long ago as 1876, in a paper read before the British Association in that year, I stated that before science could attack with any hope of success the investigation of alleged spiritualistic phenomena, we must know whether definite ideas can unconsciously be communicated from one person to another: whether such a thing as thought-transference does really exist. Evidence was adduced in favour

of this hypothesis. We have done much since then, but much remains to be done before telepathy can take its place as an accepted axiom of scientific knowledge.

I referred at the beginning of my address to some problems in connection with telepathy that await solution. Permit me for a few moments to return to this.

There is one question in regard to telepathy and similar psychological phenomena, which is likely to remain an outstanding difficulty. By what process can one mind affect another at a distance? Physical science teaches us that there is no such thing as "action at a distance." Energy at a distance reaches us either by the translation of matter through space, like a flying bullet, which carries the energy; or by the intermediary action of some medium, like the transmission of sound-bearing waves through the air, or of luminiferous waves through the ether, the energy being handed on from wave to wave. We may talk of brain waves, but that is only unscientific talk, we know of nothing of the kind. Neither do we know how gravitation acts across space: by what means such tremendous forces as bind the solar system together are either exerted or transmitted we know absolutely nothing. We don't talk of gravitation waves, we wait for further knowledge on this mysterious problem; and in like manner we must patiently wait for more light on the mode of transmission of thought through space. It may well be that thought transcends both matter and space, and has no relation to either. That mass, space, and time, may only be but the mental symbols we form of our present material system, and have no ultimate reality in themselves.

Another question is as follows: May not the uncertainty and difficulty of our experiments in thought-transference partly arise from the fact that we are not going to work the right way? We try to obtain evidence of the transmission of a word or idea through some conscious and voluntary act on the part of the percipient. We wait for a verbal or written response. Is not this a mistake? Ought we not rather to seek for evidence of thought-transference in the region of the sub-conscious life? I believe in the case of both the agent

and percipient the conscious will plays only a secondary part. This is also true I think in all cases of suggestion, and of the therapeutic effect of suggestion. It is notably seen in the cures wrought by what is known as Christian Science. I happen to have had occasion to study these somewhat carefully of late, and undoubtedly remarkable cures are effected, it may be by suggestion, but without the usual suggestive treatment; the only formula is the "Allness of God," and the "non-existence of disease." But the healing processes are set going by a purely sub-conscious act. And so in telepathy, we need to hand over the whole matter to the subliminal activities. The difficulty is how to do this. Hypnosis is one way. And in the ordinary waking state, the agent, who makes the suggestion, or transmits the idea, would I believe do so more effectively if, after the intention had soaked into his mind, he left it alone, so far as any conscious effort was concerned. And the percipient should be as passive as possible, make no effort to guess the word, but allow the perception to reveal itself through some involuntary action. Automatic writing would be the most effective, but that is not very common; the twisting of the forked dowsing twig might be utilised, indicating the letters of the alphabet by its motion; or in other ways. In the historical researches I have made on the so-called divining rod, I found it was used in this very manner two centuries ago. In fact what we need to learn is the language of the subliminal life, how it speaks to us, how we can speak to it. The voluntary action of the muscles in speech or gesture is the language of our conscious life; the involuntary action of our muscles, and emotional disturbance, appear to be the language of the sub-conscious life.

Then another point should be noticed, the frequent *lagging* of the impression in the percipient. I observed this again and again in my first experiments in thought-transference 25 years ago. The correct reply to a previous experiment would sometimes come in answer to a later and different experiment. I have noticed the same thing also in dowsing, with some dowsers the motion of the twig lags behind the moment of the impression; it turns *after* the dowser has passed a little beyond the right spot. We have precisely similar phe-

nomena in physical science. The magnetic state of iron lags a little behind the magnetising force it is subjected to; this is known as *hysteresis*, from a Greek word signifying to lag behind. So I believe there is a psychical as well as a physical hysteresis, and if so, it should be reckoned with in our experiments. It is improbable that any psychical action, even of telepathy, occurs without some preceding change in the nerve tissues; in technical phraseology neurosis must always precede psychosis; and then this change must rise till it is of sufficient magnitude to create the reflex that moves the muscles. And all this involves time, which may be greater or less, and so account for the occasional lag we observe.

Other questions suggest themselves. Is it the idea or the word, the emotion or the expression of the emotion, that is transmitted in telepathy? Probably the idea. If so it affords a hint towards the interchange of thought amongst the race in spite of differences of language. Language is but a clumsy instrument of thought, and quite incommensurate to it; its arbitrary signs show it to be but the rudiments of a system which the evolutionary progress of the race may lead us to hope will be more perfect in the future. How much more accurately should we be able to transmit complex ideas and subtle emotions if thought could evoke thought without the mechanism of speech. This may now be the case in the state of life in the unseen. The sanctity and privacy of our minds will, however, require to be protected from unwelcome intrusion, and this, so far as our conscious life is concerned, will doubtless be within our own power to effect, so long as we retain control over our self-hood, our true personality.¹

Then, again, may not animals share with man this telepathic power? They have in some directions keener perceptive faculties than man, and there is evidence that they are strongly affected by what we call apparitions. It may be that animals, and insects like the ant and the bee, *do* communicate with each other by some process analogous to telepathy. It is worth trying to find out whether say, a favourite dog can respond to a telepathic impact from his master. In centuries to come

¹In that remarkable book published some 70 years ago, Isaac Taylor's *Physical Theory of Another Life*, Chap. viii., will be found a prevision of telepathy and of some of the ideas contained in the foregoing paragraph.

it is just possible that through some such interchange of feelings we may get into closer communion with all sentient things.

There is one argument in favour of the existence of something analogous to thought-transference, which—so far as I know—has not been used, and it is, I think, a legitimate argument, for it is based upon the underlying unity that exists throughout Nature. The theory of gravitation teaches us that every grain of sand on every seashore in this world, every particle of salt in every salt cellar, is for ever pulling every grain of sand or salt, not only on this earth, but on every planet, or star, in the whole Universe. And *vice versa*, for there is a reciprocal influence ever going on between these myriads of remote things. Nay, more, such is the solidarity of the Universe that an interchange of radiation, as well of attraction, is ever taking place between things on this earth, and also between our planet and every member of the solar system. No fact in physical science is more certain than this. May not this "theory of exchanges," this mobile equilibrium, extend to the psychical as well as the physical universe? Tennyson, with poetic prescience, asks in *Aylmer's Field*:

"Star to star vibrates light, may soul to soul
Strike thro' a finer element of her own?"

Certainly it seems very probable that every centre of consciousness is likely to react telepathically upon every other centre.¹

¹Since this address was delivered my attention has been drawn to Mrs. Browning's striking sonnet on "Life," wherein the same idea is elaborated; poets are certainly wonderful pioneers of thought; before telepathy was thought of Mrs. Browning wrote:

"Each creature holds an insular point in space;
Yet what man stirs a finger, breathes a sound,
But all the multitudinous beings round
In all the countless worlds, with time and place
For their conditions, down to the central base,
Thrill, haply, in vibration and rebound,
Life answering life across the vast profound,
In full antiphony, by a common grace?
I think this sudden joyance which illumines
A child's mouth sleeping, unaware may run
From some soul newly loosened from earth's tombs:
I think this passionate sigh, which half begun
I stifle back, may reach and stir the plumes
Of God's calm angel standing in the sun."

It is hard to believe that the play of *vital* forces should be more restricted than that of the *physical* forces; that radio-activities should be confined to inanimate matter. If this unconscious radiation and reaction is going on between mind and mind, then observed cases of telepathy would simply mean the awakening of consciousness to the fact in certain minds. Why some and not all minds, and why so fitfully the conscious perception should be aroused, are problems we must leave to the future, they are quite consistent with what we find everywhere in nature. For my own part, I am disposed to think this interchange is common to the race, and is the chief reason why all men are insensibly moulded by their environment. Only, as I said just now, I believe the telepathic exchange emanates from and affects the sub-conscious part of our personality. It is potentially conscious, and may, and probably will eventually become an integral part of our self-consciousness.

We know as a matter of fact that a vast number of impressions are constantly being made upon us, of which we take no heed; they do not interest us, or they are not strong enough to arouse consciousness. But the impressions are *there*, they leave a mark upon us though we are not aware of it, and they may float to the surface, or be evoked at some future time. One of the most certain and striking results of the investigations made by our Society is that the content of our sub-conscious life is far greater than that of our conscious life. Our minds are like a photographic plate, sensitive to all sorts of impressions, but our ego develops only a few of these impressions, these are our conscious perceptions, the rest are latent, awaiting development, which may come in sleep, hypnosis, or trance, or by the shock of death, or after death.

But even here and now this sub-conscious radio-activity of thought may already play some part in the growing sense of sympathy and humanity we find in the race. And what a change would be wrought if it were suddenly to become an element of consciousness among mankind. To realise the brotherhood of the race would not then be a pious aspiration or a strenuous effort, but *the* reality of all others most vividly before us; involuntarily sharers in one another's pleasures and pains, the welfare of our fellow-men would be *the* factor in our lives which would dominate all our conduct. What would be the

use of a luxurious club and Parisian cooks if the privation and suffering of the destitute were telepathically part and parcel of our lives? Slowly the race *does* seem to be awakening to the sense of a larger self, which embraces the many in the One, to

“A heart that beats
In all its pulses with the common heart
Of humankind, which the same things make glad,
The same make sorry.”

The instinct of true religion, like the insight of the true poet, arrives at some great verity without the process of reasoning or the need of proof. Thus it has been with the belief in prayer and in the efficacy of prayer. Scepticism scoffs at a mystery which involves the direct action of mind on mind and the still greater mystery of the movement of the Infinite by the finite,—but faith remains unshaken. For us wayfaring men, however, reason needs some help in climbing the steeps attained by faith. And is not this help afforded by the steps slowly being cut in the upward path by means of psychical research? What is telepathy but the proof of the reasonableness of prayer? No longer need our reason rest content with the plausible explanation that prayer can do no more than evoke a subjective response in the suppliant, that it is inconceivable how the Infinite and the finite mind, the One manifest in the many, can have any community of thought. On the contrary, if telepathy be indisputable, if our creaturely minds can, without voice or sensation, impress each other, the Infinite mind is likely thus to have revealed itself in all ages to responsive human hearts. Some may have the spiritual ear, the open vision, but to all of us there comes at times the echo of that larger Life which is slowly expressing itself in humanity as the ages gradually unfold. In fact the teaching of science has ever been that we are not isolated in, or from, the great Cosmos; the light of suns and stars reaches us, the mysterious force of gravitation binds the whole material universe into an organic whole, the minutest molecule and the most distant orb are bathed in one and the self-same medium. But surely beyond and above all these material links is the solidarity of Mind. As the essential significance and unity of a honeycomb is not in the cells of wax, but in the common life and purpose of the builders of those cells, so the

true significance of nature is not in the material world but in the Mind that gives to it a meaning, and that underlies and unites, that transcends and creates, the phenomenal world through which for a moment each of us is passing. "The things which are seen are temporal, but the things which are unseen are eternal."

I will now turn for a few minutes to another branch of our researches, which has special interest for me as it was this subject that first aroused my interest in experimental psychology and to which I gave many months of experiment long before our Society was founded. I refer to Hypnotism.

There are no doubt many present who remember the outcry that was once raised against the investigation of hypnotism, then called mesmerism. Constant attacks were made by the medical and scientific world on the one hand, and by the religious world on the other, upon the early workers at this subject. They were denounced as impostors, shunned as pariahs, and unceremoniously pitched out of the synagogues both of science and religion; and this within my own memory. Physiological and medical science can only hang its head in shame when it looks back upon that period. What do we find to-day—the subject of hypnotism and its therapeutic value recognised! It has now become an integral part of scientific teaching and investigation in several medical schools, more especially on the Continent. I think our Society may fairly lay claim to have contributed to this change of view, and the work of our members, Edmund Gurney, and Doctors Arthur Myers, Milne Bramwell and Lloyd Tuckey, has added much to the knowledge of a subject the importance of which it is difficult to overrate. It is also worthy of note how the former neglect of this subject by science relegated it to the ignorant and the charlatan, and its practice to mysterious and often mischievous public amusements. These are now less common; and though the public apprehension of the dangerous abuse of hypnotism is grossly exaggerated, for it is less open to abuse than chloroform, I, for one, am strongly of opinion that we, as a Society, should discourage, and (as in many Continental countries) get the legislature to forbid the practice of hypnotism except under proper medical supervision.

Now I think it is the duty of our Society to cherish the memory of these courageous seekers after truth, who were the pioneers in this and other branches of psychical research. The splendid and self-sacrificing labours of those distinguished physicians, Doctors Elliotson and Esdaile, in the fields of hypnotic therapeutics and painless surgery under hypnosis should never be forgotten, any more than the later work of Dr. Braid of Manchester. Dr. Elliotson, though at the head of his profession, sacrificed everything for the advancement of this branch of knowledge. The mesmeric hospital in London, and the similar hospital founded in Calcutta by an enlightened Governor-General and placed under the care of Dr. Esdaile, did remarkable work, too little known at the present day. I am therefore glad to see in Dr. Milne Bramwell's *magnum opus* on hypnotism that he draws special attention to the labours of Elliotson, Esdaile and Braid. And it is to be regretted how completely these pioneers are ignored in the works on suggestive therapeutics by Dr. Bernheim, Dr. Liébeault, Dr. Schofield, and some others.

Leaving this part of our subject, now within the purview of science, let us pass to the extreme or advanced wing of psychical research; to that part of our work on which considerable differences of opinion exist even within our Society. I refer to spiritualistic phenomena. With regard to these we must all agree that indiscriminate condemnation on the one hand, and ignorant credulity on the other, are the two most mischievous elements with which we are confronted in connection with this subject. It is because we, as a Society, feel that in the fearless pursuit of truth it is the paramount duty of science to lead the way, that the scornful attitude of the scientific world towards even the investigation of these phenomena is so much to be deprecated. Hence, as in the case of those who were the pioneers in the study of hypnotism, we ought not to forget the small band of investigators who before our time had the courage, after patient enquiry, to announce their belief in what, for want of any better theory, they called spiritualistic phenomena. No doubt we can pick holes in their method of investigation, but they were just as

honest, just as earnest seekers after truth, as we claim to be, and they deserve more credit than we can lay claim to, for they had to encounter greater opposition and vituperation. The superior person then, as now, smiled at the credulity of those better informed than himself. I suppose we are all apt to fancy our own power of discernment and of sound judgment to be somewhat better than our neighbours'. But after all is it not the common-sense, the care, the patience, and the amount of uninterrupted attention we bestow upon any psychical phenomena we are investigating, that gives value to the opinion at which we arrive, and not the particular cleverness or scepticism of the observer? The lesson we all need to learn is that what even the humblest of men *affirm* from their own experience, is always worth listening to, but what even the cleverest of men, in their ignorance, *deny* is never worth a moment's attention.

The acute and powerful intellect of Professor De Morgan, the great exposé of scientific humbug, long ago said, and he had the courage publicly to state, that however much the Spiritualists might be ridiculed, they were undoubtedly on the track that has led to all advancement in knowledge, for they had the *spirit* and *method* of the old times, when paths had to be cut through the uncleared forests in which we can now easily walk.¹ Their *spirit* was that of universal examination unchecked by the fear of being detected in the investigation of nonsense. This was the spirit that animated the Florentine Academicians and the first Fellows of the Royal Society 250 years ago; they set to work to prove all things that they might hold fast to that which was good. And their *method* was that of all scientific research, viz., to start a theory and see how it worked. Without a theory "facts are a mob, not an army." Meteorology at the present moment is buried under a vast mob of observations for want of ingenuity in devising theories; *any* working hypothesis is better than none at all. And so I agree with De Morgan that the most sane and scientific method in psychical research is not to be afraid of propounding a theory because it may seem extraordinary, but have courage to do so and see if it works. The theory of thought-transference led to the accumulation of evidence which

¹ See Preface of *From Matter to Spirit*, p. xviii.

bids fair, sooner or later, to place telepathy among the established truths of science.

The amusing feature in the progress of knowledge is that, usually, critics who resist as long as they can a new theory are apt afterwards, when the theory becomes widely accepted, to use it indiscriminately, as if it covered all obscure phenomena; and so it becomes a kind of fetish in their thoughts. We are all familiar with the imposture theory, with the coincidence theory, and with the telepathic theory; each excellent in their way, but most foolish and unscientific if we allow any one of them to obscure our vision or paralyse our investigation. What is to be reprobated, as De Morgan said, "is not the wariness which widens and lengthens enquiry, but the *assumption* which prevents and narrows it."

Instances are well known of the most acute and careful enquirers, trained psychical detectives we might call them, who having begun with *a priori* reasoning and resolute scepticism, when they have thrown aside their preconceived assumptions, and given the necessary time and patience to the investigation of one particular case, have gone over to the spiritualistic camp. They may be right or wrong in their present opinion, but we must all admit they have far better reasons for forming a judgment than any of us can have. If they are right it follows that the particular case they have investigated is not likely to be a solitary one, but typical of similar cases with us as well as with them.

Pray do not suppose I hold a brief on behalf of spiritualism either as a practice or a religion. On the contrary, to my mind few things are more dismal than the common run of spiritualistic séances. Sometimes they revolt one's feelings, and always they are a weariness to the flesh. Perhaps the manifold experiences I have had have been unfortunate, and I freely admit my remarks apply more particularly to sittings with professional mediums, where what are called physical manifestations take place, which always seem to be on a lower plane, even where the possibility of fraud has been carefully excluded. Nevertheless, if we can get at truth, what does it matter whether we draw it from a well or drag it from a bog?

It is impossible, however, not to feel some sympathy with

the common objection of the doubter that the phenomena are of so paltry a character. But we cannot prescribe to nature, we cannot get rid of the leprosy of doubt by choosing rivers of our own to wash in. And so we must be content with what we find. After all, from a scientific point of view, *nothing* can be paltry or mean that manifests *life*.

Bacteriologists spend their days searching for evidence of the lowest forms of life. And surely any evidence of personality that gives us the faintest, rudest sign that life still persists though the clothing of the body be gone, is worth infinite trouble to attain. Though it may be

“Only a signal shown and a voice from out of the darkness,”

it is not paltry. In fine, it is this natural human longing that renders a dispassionate consideration of the facts, a calm and critical weighing of the evidence, so difficult and yet so imperative.

We must, however, bear in mind, as was pointed out by the present Prime Minister in the remarkable address he delivered from this chair, that if science had first attempted to include in its survey not only physical but psychological phenomena it might for centuries have lost itself in dark and difficult regions, and the work of science to-day would then have been *less*, not more complete.¹ This is very true, the foundations of our faith in the undeviating order of nature had to be laid by the investigation of the laws of matter and motion and by the discovery of the orderly evolution of life. What science has now established is that the universe is a cosmos, not a chaos, that amidst the mutability of all things there is no capriciousness, no disorder; that in the interpretation of nature, however entangled or obscure the phenomena may be, we shall never be put to intellectual confusion.

Now, if instead of investigating the normal phenomena of the world in which we live, science had first grappled with supernormal phenomena, it would not have reached so soon its present assured belief in a reign of law. We believe that fuller knowledge of the obscure phenomena we are investigating will in time come to us, as it has in other branches of

¹ *Proceedings S.P.R.*, vol. x., p. 5.

science, but the appearances are so elusive, the causes so complex, the results of work sometimes so disheartening, that we need the steadying influence of the habit of thought engendered by science to enable us patiently and hopefully to pursue our way.

Possibly historical research amongst the most ancient records may give us fragments of unsuspected information; for it is very probable that many, if not all the psychological phenomena we are now investigating were known, and the knowledge jealously guarded, in ages long past. The very high civilisation which is now known to have existed thousands of years before Christ in the earliest Egyptian dynasties, makes it almost inconceivable to imagine that subjects of such transcendent interest to mankind were not then part of the learning of the few, part of "the wisdom of Egypt." The seizure of this knowledge by the priestly caste and its restriction to themselves, with penalties to all intruders, was the natural sequence of the lower civilisation that followed. Thus psychological phenomena became veiled in mystery, and ultimately degraded to a mischievous superstition. Mystic rites were added to impress the multitude; finally divination, enchantment, augury, and necromancy became methods of wielding a mysterious power held by the few. But such practices "wearing the people's intellect, destroyed their enterprise and distorted their conscience."¹ The industry and politics of the people became paralysed by giving heed to an oracle, or to gibbering spirits, rather than to reason and strenuous endeavour. The great Hebrew prophets, the statesmen of their day, saw this clearly and had the courage to denounce such practices in unmistakable terms; warning the people that by using these things as an infallible guide, or as a religion, they were being misled, and reason was being dethroned from her seat. And so the burden of their speech was, "Thy spells and enchantments with which thou hast wearied thyself have led thee astray."² Hence these practices were prohibited, as a careful study of the whole subject shows, because they enervated the nation, and tended to obscure the Divine idea; to weaken the supreme faith in, and reverent worship of, the one omnipotent Being the Hebrew

¹ Prof. G. A. Smith in his brilliant and scholarly work on Isaiah, vol. 2., p. 199.

² Cf. latter half of Isaiah, 47 ch.

nation was set apart to proclaim. With no assured knowledge of the great world-order we now possess, these elusive occult phenomena confused both the intellectual and moral sense, and so they were wisely thrust aside. But the danger at the present day is very different. Instead of a universe peopled with unseen personalities, the science of to-day has gone to the other extreme, and as Mr. Myers once eloquently said, we are now taught to believe "the Universe to be a soulless interaction of atoms, and life a paltry misery closed in the grave." Were the Hebrew prophets now amongst us, surely their voice would not be raised in condemnation of the attempts we are making to show that the order of Nature contains an even vaster procession of phenomena than are now embraced within the limits of recognised science, and that behind the appearances with which science deals there are more enduring and transcendent realities.

I have ventured upon this digression in the hope that I may remove the misgivings with which a part of our work is regarded by some leaders of religious opinion, who from time to time have been in communication with me. Perhaps I may also add that the aversion which some feel towards any enquiry into spiritualistic phenomena arises I think from a misapprehension. With what is spiritual, with religion, these phenomena have nothing in common. They may afford us a rational belief in the existence of life without a visible body, of thought without material protoplasm, and so become the handmaid of faith. But they belong to a wholly different order from that of religious faith. Our concern is solely with the evidence for certain *phenomena*; and as Professor Karl Pearson has said, "Wherever there is the slightest possibility for the mind of men to *know*, there is a legitimate problem for science." Hence *all* appearances, whether of microbes or of men, are legitimate subjects of investigation. Because they happen to be fitful, or phenomena occurring in an unseen environment, does not render the investigation improper or unscientific, though it makes it considerably more difficult.

Now the investigations we have published undeniably establish the fact, that human personality embraces a far larger

scope than science has hitherto recognised. That it partakes of a *two-fold life*, on one side a self-consciousness which is awakened by, and related to time and space, to sense and outward things; on the other side a deeper, slumbering, but potential consciousness, the record of every unheeded past impression, possessing higher receptive and perceptive powers than our normal self-consciousness, a self that, I believe, links our individual life to the ocean of life, and to the Source of all life. It is a remarkable fact that long ago the philosopher Kant instinctively stated the same truth. He says: "[It is possible that] the human soul even in this life stands in indissoluble community with all immaterial natures of the spirit world, it mutually acts upon them and receives from them impressions, of which, however, as man, it is unconscious as long as all goes well."¹ This, of course, was Swedenborg's view. He frequently tells us, "Man is so constituted that he is at the *same time* in the spiritual world and in the natural world." Plotinus, who lived in the third century, held a similar belief, this was in fact the view of the Neo-Platonists and of the later mystics generally.² In connection with this subject may I commend to you the perusal of Dr. Du Prel's *Philosophy of Mysticism*, which has been translated with loving labour by one of the earliest and best friends of our Society, Mr. C. C. Massey: perhaps the most valuable part of the work being the suggestive introduction which Mr. Massey has himself added.³

¹ "Es wird künftig, ich weiss nicht wo oder wann, noch bewiesen werden, dass die menschliche Seele auch in diesen Leben in einer unauföflich verknüpften Gemeinschaft mit allen immateriellen Naturen der Geisterwelt stehe, dass sie wechselweise in diese wirke und von ihnen Eindrücke empfangt, deren sie sich als Mensch nicht bewusst ist, so lange alles wohl steht." (Kant's *Sammtliche Werke*, Hartenstein's Edition, 1867, vol. ii., p. 341.)

² Vaughan's "Hours with the Mystics," vol. i., contains an excellent summary of the views of the Neo-Platonists. Philo Judæus writing from Alexandria a few years B.C. says, "This alliance with an upper world, of which we are conscious, would be impossible, were not the soul of man an indivisible portion of the divine and blessed spirit." See also Thomas Taylor's translation of some of the works of Plotinus.

³ Here perhaps I may add one line expressive of my own indebtedness to and affectionate regard for my dear friend C. C. Massey, whose knowledge of all that relates to the higher problems before our Society is more profound than that of any one I know.

There is one interesting point in connection with spiritualistic phenomena which is worth a little attention. As we are all aware, the production of these phenomena appears to be inseparably connected with some special person whom we call "mediumistic." This fact affords perennial amusement to the man in the street. But from a purely scientific standpoint there is nothing remarkable in this. Recent discoveries have revealed the fact that a comparatively few substances possess what is called radio-active power. Unlike ordinary forms of matter, these radio-active bodies possess an inherent and peculiar structure of their own. There is therefore nothing absurd in supposing that there may be a comparatively few persons who have a peculiar and remarkable mental structure differing from the rest of mankind. Moreover, the pathologist or alienist does not refuse to investigate epilepsy or monomania because restricted to a limited number of human beings.

Furthermore, physical science gives us abundant analogies of the necessity of some *intermediary* between the unseen and the seen. Waves in the luminiferous ether require a material medium to absorb them before they can be perceived by our senses. The intermediary may be a photographic plate, a fluorescent screen, the retina, a black surface, or an electric resonator, according to the length of those waves. But some medium formed of ponderable matter is absolutely necessary to render the actinic, luminous, thermal, or electrical effects of these waves perceptible to our senses. And the more or less perfect rendering of the invisible waves depends on the more or less perfect synchronism between the unseen motions of the ether and the response of the material medium that absorbs and manifests them.

Thus we find certain definite physical media are necessary to enable operations to become perceptible which otherwise remain imperceptible. Through these media energy traversing the unseen is thereby arrested, and, passing through ponderable matter, is able to affect our senses and arouse consciousness.

Now, the nexus between the seen and the unseen may be physical or psychical, but it is always a specialised substance, or living organism. In some cases the receiver is a body in a state of unstable equilibrium, a sensitive material—like one of Sir Oliver Lodge's receivers for wireless telegraphy—and in

that case its behaviour and idiosyncrasies need to be studied beforehand. It is doubtless a peculiar psychical state, of the nature of which we know nothing, that enables certain persons whom we call mediums to act as receivers, or resonators, through which an unseen intelligence can manifest itself to us. And this receptive state is probably a sensitive condition easily affected by its mental environment.

We should not go to a photographer who took no trouble to protect his plates from careless exposure before putting them in the camera. And I do not know why we should expect anything but a confused result from a so-called medium (or automatist, as Myers suggested they should be called) if the mental state of those present reacts unfavourably upon the sensitive. Infinite patience and laborious care in observation we must have (as in all difficult investigation), but what good results from any scientific research could we expect if we started with the presumption that there was nothing to investigate but imposture?

In connection with this subject of mediumship, it seems to me very probable that a medium, an intermediary of some sort, is not only required on our side in the seen, but is also required *on the other side* in the unseen. In all communication of thought from one person to another a double translation is necessary. Thought, in some inscrutable way, acts upon the medium of our brain, and becomes expressed in written or spoken words. These words, after passing through space, have again to be translated back to thought through the medium of another brain. That is to say, there is a descent from thought to gross matter on one side, a transmission through space, and an ascent from gross matter to thought on the other side. Now, the so-called medium, or automatist, acts as *our* brain, translating for us the impressions made upon it and which it receives across space from the unseen. But there must be a corresponding descent of thought on the other side to such a telepathic form that it can act upon the material particles of the brain of our medium. It may be even more difficult to find a spirit medium there than here. No doubt wisely so, for the invasion of our consciousness here might otherwise be so frequent and troublesome as to paralyse the conduct of our life. It is possible therefore that much of the difficulty and

confusion of the manifestations which are recorded in our *Proceedings*, and in the very valuable contribution which Mr. Piddington has just given us of sittings with Mrs. Thompson, are due to inevitable difficulties in translation on *both* sides.¹

Furthermore, if my view be correct, that the self-conscious part of our personality plays but a subordinate part in any telepathic transmission, whether from incarnate or discarnate minds, we shall realise how enormously complex the problem becomes. So that the real person whom we knew on earth may find the difficulty of self-manifestion too great to overcome, and only a fitful fragment of their thoughts can thus reach us.

There is, however, another view of the matter which to me seems very probable. The transition from this life to the next may in some respects resemble our ordinary awakening from sleep. The discarnate soul not improbably regards the circumstances of his past life "in this dream-world of ours," as we now regard a dream upon awakening. If, even immediately upon awakening, we try to recall all the incidents of a more or less vivid dream, we find how difficult it is to do so, how fragmentary the whole appears; and yet in some way we are conscious the dream was a far more coherent and real thing than we can express in our waking moments. Is it not a frequent and provoking experience that whilst some trivial features recur to us, the dream as a whole is elusive, and as time passes on even the most vivid dream is gone beyond recall? May it not be that something analogous to this awaits us when we find ourselves amid the transcendent realities of the unseen universe? The deep impress of the present life will doubtless be left on our personality, but its details may be difficult to bring into consciousness, and we may

¹Miss Jane Barlow, who has made a close study of these communications, writes to me on this point: "The almost unimaginable difficulty in communicating may account for many of the failures, mistakes, and absurdities we notice. I think we are apt to lay too much stress on the want of memory. Apart from purely evidential considerations, there seems a tendency to regard it as a larger and more essential element of Personality than it really is. In my own case, for instance, any trivial cause—a headache, a cold, or a little flurry—scatters my memory for proper names. I can easily imagine myself forgetting my own name without suffering from any serious confusion of intellect in other respects, or the least decay of personality."

find them fading from us as we wake to the dawn of the eternal day.

Whatever view we take, the records of these manifestations in our *Proceedings* give us the impression of a truncated personality, "the dwindling remnant of a life," rather than of a fuller, larger life. Hence, whilst in my opinion psychical research *does show us* that intelligence can exist in the unseen, and personality can survive the shock of death, we must not confuse mere, and perhaps temporary, survival after death with that higher and more expanded life which we desire and mean by immortality, and the attainment of which, whatever may be our creed, is only to be won through the "process of the Cross." For it is by self-surrender, the surrender, that is, of all that fetters "What we feel within ourselves is highest," that we enter the pathway of self-realisation. Or as Tennyson expresses it:—

"Thro' loss of Self
The gain of such large life as match'd with ours
Were Sun to spark—unshadowable in words,
Themselves but shadows of a shadow-world." ¹

¹So also Goethe :

"Und so lang du das nicht hast
Dieses: 'stirb und werde'!
Bist du nur ein trüber gast
Auf der dunken Erde."

which a friend has rendered as follows :

"Whoso heeds not this behest
'Die to win new birth,'
Lives but as a hapless guest
On a darkening earth."

XX.

By PROFESSOR CHARLES RICHEL.

February 6th, 1905.

LA MÉTAPHYSIQUE.

I.

PUISQUE j'ai l'honneur de parler aujourd'hui en votre nom, je tiens d'abord à exprimer ici nos respects et notre gratitude à notre président, M. le professeur Barrett, qui, dès les premiers jours de votre Société, lui a donné tout son talent et tout son labeur. Nul de nous ne se consolerait de ne plus l'avoir comme président, si nous n'avions pas la certitude qu'il continuera à nous apporter, comme par le passé, le précieux appui de ses conseils et de sa haute science.

Pourtant il n'est pas besoin de vous dire combien je suis fier d'avoir été nommé votre président. Et ma reconnaissance égale mon émotion. C'est la première fois qu'à un étranger revient cette dignité, et j'en sens tout le prix.

A vrai dire, j'ai tort de prononcer le mot d'étranger; car je me flatte d'avoir été un des premiers adhérents de la Société des recherches psychiques. Elle est aujourd'hui incontestée et prospère; mais elle a connu des temps moins favorables.

Aussi bien me permettez-vous, en débutant, de vous rappeler un souvenir tout à fait personnel et intime, car il évoque la mémoire d'amis qui me sont bien chers, d'hommes illustres que vous avez tous connus, et qui ont jeté tant d'éclat sur notre Société, Edmond Gurney, Henri Sidgwick, et surtout Frédéric Myers.

C'était en 1882. Il y a déjà presque un quart de siècle. Le premier volume de vos bulletins venait de paraître, contenant des histoires curieuses et étranges, des expériences sur la transmission de la pensée; des récits de maisons hantées, de fantômes véridiques; et en même temps une sorte de profession de foi, prudente et hardie tout ensemble, indiquant la ferme résolution de donner à l'étude de ces phénomènes la précision scientifique qui leur avait manqué jusqu'alors.

Ce livre, qui répondait à mes secrètes aspirations, fit grande impression sur moi. J'étais convaincu déjà—et je le suis davantage aujourd'hui—que la science classique n'avait pas encore dévoilé toute la vérité contenue dans l'univers; et que l'inexplicable (ou l'inexpliqué) gouvernait le monde. Aussi étais-je heureux de voir des savants, audacieux et sans préjugés, poursuivre résolument la conquête du mystère par la voie de l'expérimentation rigoureuse. Mais, si tel fut mon sentiment, ce fut loin d'être l'opinion générale. De toutes parts, les critiques, sarcastiques ou pédantes, affluèrent. Et ceux qui ne daignèrent pas critiquer remplacèrent la raillerie et la discussion par le silence; un silence hostile et obstiné. Les spirites mêmes, comprenant mal que si peu de place fût faite à la théorie, furent sans bienveillance pour la nouvelle Société psychique. Indifférence, scepticisme, raillerie, hostilité: tels furent les premiers succès dans le monde de votre tentative généreuse.

Maintenant que bien des années ont passé, nous pouvons dire que ce début peu triomphal ne fut pas un malheur. Il est bon que les tentatives nouvelles et hardies soient reçues par le dénigrement; car ce dénigrement est fécond; il encourage à la lutte; il provoque des expériences nouvelles; il stimule les énergies. Au lieu de maudire nos contradicteurs, nous devrions les remercier; car ils nous empêchent de sommeiller sur le commode oreiller de la vanité satisfaite.

A ce moment (1882), je ne connaissais aucun d'entre vous. Mais votre initiative me donna une stimulation puissante. Et je résolus, de mon côté, de travailler dans le même sens. Silencieusement et tout seul, en 1882, 1883, je fis quelques expériences sur la lucidité et la suggestion mentale, qui confirmèrent plusieurs des faits affirmés dans vos premiers bulletins, et je les publiai dans la *Revue philosophique*. Quelques

jours après je recevais une lettre d'Edmond Gurney, où il m'exprimait toute sa joie, et, si je puis dire, sa reconnaissance, pour l'appui imprévu que venaient apporter à l'œuvre, inaugurée par lui, mes modestes tentatives d'expérimentation.

Nous nous rencontrâmes, et à Paris et à Londres; et je pus alors m'initier à la pensée de cet homme éminent, trop tôt disparu. Je pus apprécier la haute et sereine intelligence du professeur H. Sidgwick; et me lier d'une amitié profonde avec Fréd. Myers.

Celui-là, vous l'avez tous connu. Vous ne trouverez donc pas que j'exagère si je dis que Fréd. Myers a été vraiment pendant vingt ans l'âme de cette Société. C'est lui qui, par un heureux mélange d'audace dans les théories, et de rigueur dans les méthodes, servi par un esprit sagace et charmant, a inspiré vos réunions et mené à bien le travail considérable que la Société des recherches psychiques a pu effectuer.

Voilà pourquoi je ne puis me considérer comme un étranger parmi vous; car je fus, dès les premiers jours, initié par Gurney et Myers aux nobles efforts tentés par eux pour faire rentrer les phénomènes psychiques dans le cadre des sciences régulières et précises.

Mais le meilleur hommage qui se puisse rendre à ces hommes pour qui le travail était le premier devoir, c'est de suivre leur exemple et de travailler. Je vais donc inaugurer tout de suite mon rôle de président, en vous conviant au travail. Et alors, pour que cette exhortation comporte une sorte de sanction, nous jetterons un rapide coup d'œil sur le passé: nous comparerons l'état actuel des sciences psychiques avec ce qu'elles étaient autrefois, et nous envisagerons ensemble quelles espérances nous sont permises et quels écueils il faut éviter.

II.

Nous ne remonterons pas au très lointain passé: car dans tous les ouvrages on trouve d'abondants documents sur les phénomènes dits occultes, qui avaient été entrevus par les anciens et par les Orientaux. Ce sont travaux d'érudition, dont l'intérêt, quoique assez vif, me paraît secondaire. J'aime mieux prendre les choses au point où elles étaient en 1875 environ, il y a trente ans. Vous verrez qu'en trente années—ce qui

n'est absolument rien dans les histoires humaines—un grand pas a été fait.

Nous nous rendons compte assez mal de la marche des idées. Autour de nous tout change, costumes, machines, langage même, et ces changements, qui sont graduels, passent inaperçus. Une fois qu'un progrès a été effectué, il entre si vite dans les mœurs que nous avons peine à concevoir qu'il n'ait pas existé toujours. Les très jeunes gens ne s'imaginent pas qu'il y a trente ans on ne connaissait ni le téléphone, ni le phonographe, ni les bicyclettes, ni les automobiles, ni les sleeping cars, ni les rayons X, ni l'antisepsie, ni la théorie des microbes. Il leur paraît aujourd'hui que ces choses ont toujours existé, qu'on n'a pas pu vivre sans elles; et pourtant—j'en appelle aux souvenirs de jeunesse de tous les hommes de ma génération—rien de semblable n'existait il y a trente ans, et personne ne supposait que cela existerait un jour.

Et, si l'on veut avoir une preuve bien démonstrative de notre rapide évolution, qu'on compare les robes, les chapeaux, les théâtres, les romans de 1875, à ce que l'année 1905 nous donne en fait de robes, de chapeaux, de théâtres et de romans. Pas une dame n'oserait sortir avec un chapeau de la mode de 1875; pas un auteur dramatique n'oserait faire une pièce comme les pièces qui réussissaient en 1875. Quant aux romans de l'époque, sauf quelques rares chefs d'œuvre, ils n'ont plus à présent un seul lecteur. Même les ouvrages écrits pour les enfants sont de tout autre modèle, et les enfants d'aujourd'hui repoussent dédaigneusement les livres qui ont enchanté notre premier âge.

Donc nous changeons, et nous changeons très vite. Seulement ce changement se fait par une imperceptible série de transitions, de sorte qu'il passe inaperçu de nous.

Or, dans les sciences psychiques, tout s'est profondément modifié, et, pour comprendre ces profondes modifications, il nous suffira d'examiner quelle était, en fait de sciences psychiques, la mentalité des hommes de 1875.

Ni le somnambulisme, ni le magnétisme animal, ni l'hypnotisme, ni aucun des phénomènes dits occultes n'était accepté; et même on ne se donnait pas la peine de les étudier. On traitait toutes ces études par un sourire d'incrédulité et de dédain. Et cependant n'y avait-il pas pour le magnétisme animal les

beaux travaux de Deleuze, de Reichenbach, de Braid ? Mais il était plus simple de nier tout, en bloc, sans examen, solennellement, comme l'avait fait un médecin éminent dans l'article "Mesmérisme" du *Grand Dictionnaire encyclopédique des Sciences médicales*, en 1875. "*En définitive*," disait-il pour tout résumer en un mot, "*le magnétisme animal n'existe pas.*" Et, afin de mieux indiquer sa pensée, il faisait imprimer cette phrase en gros caractères, en lettres capitales, les plus grosses de tout ce colossal dictionnaire, qui compte cent volumes.

Le spiritisme était plus maltraité encore, s'il est possible. Notre illustre et génial collègue, Sir William Crookes, avait cependant déjà publié ses extraordinaires expériences ; mais elles n'avaient provoqué aucune conviction. On les avait raillées, avec plus ou moins d'esprit, mais sans même se donner le soin de les réfuter. Les spirites d'ailleurs formaient une caste à part, représentant en quelque sorte des adeptes d'une nouvelle religion. Ils s'entouraient de mystères, exigeaient une initiation, des prières. On ne pouvait faire partie des cercles spirites qu'après avoir fait acte d'adhésion à leurs principaux dogmes. Le fondement de la doctrine spirite était, en France et sur le continent, la doctrine de la réincarnation, propagée par Allan Kardec, et les discussions sur les théories préoccupaient plus que l'exposé des faits. Ces faits, épars, et mal racontés, étaient presque exclusivement des histoires de tables tournantes. Or nous savons que, de toutes les expériences qu'on peut faire en matière de sciences occultes, celle des tables tournantes est peut-être la plus décevante ; car elle exige des précautions telles que bien rarement elle peut fournir quelque renseignement sérieux.

Quant aux matérialisations, aux apparitions, aux maisons hantées, aux prémonitions, aux apports, çà et là dans les journaux spirites quelques récits étaient rapportés, qui ne pouvaient en général inspirer aucune confiance ; car c'étaient, sauf exceptions, des histoires vagues, de seconde ou de troisième main, et la naïve crédulité des narrateurs provoquait, comme de juste, le scepticisme des lecteurs.

En tout cas, tout était épars, sans lien, sans cohésion. Selon l'occasion ou le tempérament, il y avait des magnétiseurs, des spirites, des hypnotiseurs, des médiums clairvoyants, des

médiums à matérialisations; mais le groupement de tous ces phénomènes n'avait pas été tenté; et la seule tentative de synthèse qu'on s'était hasardé à faire, c'était l'évocation des *esprits*, sortes de *Dei ex machina*, suppléant à tout par leur omnipotence, leur omniscience, et leur ubiquité.

Aussi les doctrines et les faits psychiques étaient-ils également repoussés par les savants et par le vulgaire. On ne comprenait même pas qu'il fût permis à un homme sérieux d'examiner si de tels faits étaient vrais ou non.

Voilà pourquoi, Mesdames et Messieurs, je professe une si grande admiration pour notre illustre collègue, Sir William Crookes. Ce n'est pas seulement parce qu'il a découvert des métaux nouveaux, inventé des appareils admirables, source de fécondes découvertes, imaginé des théories audacieuses dont chaque jour vient confirmer la profonde pénétration. C'est pour autre chose encore que je l'admire; c'est pour son courage scientifique. Le courage du philosophe consiste à déclarer la vérité et à braver pour elle la raillerie et le mépris. Il me paraît que ce courage là—le courage professionnel du savant—vaut bien la bravoure du soldat qui monte à l'assaut, sous la mitraille.

Quand, en 1875, étant alors tout jeune étudiant, je me hasardai à parler du somnambulisme, je débutai par des paroles qui sembleraient bien ridicules maintenant: *Il faut un certain courage*, disais-je alors, *pour prononcer le mot somnambulisme*. De telles expressions ne se comprennent plus aujourd'hui. Aujourd'hui nos jeunes étudiants parlent couramment du magnétisme animal, de la suggestion hypnotique, et des autres phénomènes de même ordre, devenus classiques. Même ils sont parfois un peu ingrats envers leurs devanciers, car ils ne peuvent pas se figurer à quel discrédit l'étude de ces phénomènes menait les hommes ayant la témérité de s'aventurer dans ce champ maudit. Je me souviens encore que, lorsque je fis part de mes études à mon père, dont la haute raison et la sagacité me guidèrent toujours, il les reconnut exactes. Mais, quand je lui dis que je les voulais publier, il m'en dissuada, me disant: "Tu veux donc te perdre."

Heureusement on ne se perd pas quand on défend ce qu'on croit être le vrai. Ce serait une étrange maladresse que

d'avoir découvert une vérité et de ne pas oser la révéler, sous prétexte qu'elle sera contredite. Eh oui ! mille fois oui, elle sera contredite. Toutes les vérités nouvelles ont commencé par là, presque sans exception. Et, *si magnis liceat componere parva*, je ne me suis pas plus perdu en affirmant la réalité du somnambulisme provoqué, que Sir William Crookes ne s'est perdu en affirmant l'existence des matérialisations.

Même, puisque je parle ici de ce qu'on est convenu d'appeler *courage* scientifique,—ce qu'il vaudrait mieux dénommer *devoir* scientifique,—on me permettra une courte digression. Souvent les spirites, dont la conviction, profonde comme celle des apôtres, n'est pas toujours appuyée sur des preuves irréfutables, nous reprochent de ne pas oser dire tout haut ce que nous pensons tout bas ; et de mettre une prudence exagérée, presque lâche, dans nos paroles ou nos écrits. Nous aurions dans la main des trésors de choses vraies, et, par timidité, nous n'oserions pas ouvrir la main pour laisser s'envoler de par le monde ces vérités que nous détenons jalousement. Il me paraît que ce reproche est bien injuste. Nous ne sommes encore ni les uns, ni les autres, parvenus à ce degré d'ineptie. Quoi ! voici une vérité dont je suis absolument certain, et que, par je ne sais quelles enfantines craintes, je n'oserais pas énoncer ! Serions-nous assez sots pour ne pas être sûrs qu'une vérité finira toujours tôt ou tard par apparaître au grand jour et faire irruption parmi les hommes ? Vraiment non ! Si nous hésitons à raconter tel ou tel fait, à publier telle ou telle expérience, c'est qu'il nous reste encore des doutes. Car, si notre certitude était complète, nous n'hésiterions pas à parler *urbi et orbi*. Quel pauvre calcul que de ne pas oser dire la vérité, sous prétexte qu'elle va soulever des appréciations hostiles ! C'est un peu de cette manière naïve et sottise que procèdent certains gouvernements, quand ils ont reçu la nouvelle d'une défaite militaire ; ils n'osent pas la communiquer à la presse, et publient des bulletins mensongers. Cependant ils doivent bien savoir qu'un jour ou l'autre la défaite sera connue dans tous ses détails.

Si parfois on hésite à raconter des faits dont on a été témoin, ce n'est pas seulement parce qu'un doute subsiste, c'est aussi parce qu'il ne suffit pas d'avoir observé un fait

isolé pour le publier. La science n'est pas le récit d'un fait, ni même le récit de plusieurs faits. Elle est plus compliquée qu'une série d'histoires entassées l'une après l'autre. Elle demande que ces faits épars soient plus ou moins coordonnés; avec des preuves, des démonstrations, et des répétitions qui les éclaircissent. Comme on a l'espoir de faire sortir les sciences psychiques de la période empirique pour les faire entrer dans la période expérimentale, on attend que l'expérimentation ait complété, et plus ou moins élucidé, un fait empirique isolé; et souvent on est forcé d'attendre longtemps. *Experientia fallax, judicium difficile*, disait déjà Hippocrate.

En outre il est parfois certaines preuves morales, qui sont décisives pour nous, mais qui ne peuvent être considérées comme telles par le public. On pourrait citer bien de curieuses histoires, très instructives, mais qui n'ont que notre conviction personnelle pour preuve de leur valeur scientifique. Elles n'ont donc pas droit d'admission dans la science, et j'estime que provisoirement il vaut mieux ne pas les publier. Ce n'est pas par défaut de courage, ce n'est pas par déférence pour l'opinion publique, c'est par respect d'une critique scientifique très légitime. J'avoue même que, si un excellent observateur venait me citer certains faits singuliers, établis uniquement sur sa conviction intime, j'aurais peine à y ajouter foi, et je supposerais quelque défectuosité dans l'observation, ou quelque tromperie habile dans la production du phénomène.

Alors à quoi bon publier une expérience dont la réalité, quelque certaine qu'elle soit pour nous, ne peut être démontrée ?

Revenons maintenant à l'année 1875, et aux progrès de l'opinion en matière psychique.

Ces progrès ont été considérables: et, au risque de passer pour un flatteur, je dirai que c'est à vous qu'ils sont dus. C'est votre Société qui, dirigée par vos illustres présidents, que ce soit Fréd. Myers, ou H. Sidgwick, ou M. Arthur Balfour, ou M. Barrett, ou Sir O. Lodge, car tous ont eu part à vos travaux, a osé initier un public sceptique à des faits étranges et troublants. Le public put se rendre compte qu'on pouvait être, vis à vis des faits psychiques, aussi exigeant en démonstrations que pour les autres faits scientifiques, de chimie, de physiologie, d'astronomie. Vous avez même avec raison

pensé qu'il fallait être plus sévère encore que ne sont d'ordinaire les chimistes ou les physiologistes dans leurs démonstrations ; car, plus la chose à établir est extraordinaire, dépassant les prévisions normales, plus les preuves doivent être rigoureuses. Et alors, dans votre *Journal* et dans vos *Proceedings*, parurent des récits contrôlés exactement, toujours soumis à une critique pénétrante, desquels on pouvait tirer cette conclusion certaine que des phénomènes inexplicables se produisent, divers, multiples, protéiformes, dépendant probablement de causes diverses, mais cependant ayant ce caractère commun de n'être pas explicables par les explications simplistes, qu'essayent de nous donner les sciences officielles classiques.

Parallèlement à votre effort, sur le continent, en France et en Italie surtout, on poursuivait méthodiquement l'étude des phénomènes semblables. Aksakoff, Ochorowicz, de Rochas, Lombroso, J. Maxwell, et bien d'autres, s'appliquaient à donner de la précision aux expériences. Mais, malgré tous les efforts de ces hommes éminents, ce serait une lourde exagération que de croire la démonstration parachevée. Pour grand que soit le labeur, il n'a pas réussi à ce point que les phénomènes psychiques sont entrés définitivement dans la science. Nous serions bien imprudents de le croire. Mais nous sommes au moins arrivés à ce résultat, qui est de première importance, qu'aujourd'hui on a le droit d'étudier ces questions sans être accusé d'aliénation mentale. Il n'y a plus ni commisération, ni railleries, ni injures pour les psychologues qui osent aborder de front l'étude des sciences occultes. Et c'est là un réel progrès que d'avoir ouvert la voie à nos successeurs, de sorte qu'ils pourront poursuivre la recherche de la vérité sans rencontrer les obstacles qui nous ont été opposés.

Il me paraît que ce résultat n'est pas une quantité négligeable.

Mais il en est un autre, très important aussi, et sur lequel je dois maintenant insister.

Les nombreux faits, plus ou moins authentiques, plus ou moins bien observés, qui, grâce à la collaboration des amis de la psychologie disséminés dans le monde, se trouvent consignés dans les recueils de sciences psychiques, constituent une masse imposante de documents, dans lesquels on peut largement puiser pour écrire un livre qui n'a pas été écrit encore, livre qui traitera de la science psychique dans son ensemble, livre où seront mis

en valeur les liens qui unissent les divers phénomènes.¹ Ce livre de synthèse n'est pas fait : mais quelque jour il apparaîtra,

¹ La bibliographie est tellement vaste dans la science métapsychique qu'on ne saurait passer sous silence cet important chapitre négligé.

Je crois bien que pour la commodité des recherches on devrait faire usage de la classification décimale, telle que Melvil Dewey l'a proposée, et telle qu'elle a été modifiée, avec l'assentiment de M. Dewey, par l'Institut de bibliographie internationale de Bruxelles.

J'ai donné en 1902 la classification décimale de la Physiologie, et j'y ai introduit la bibliographie des sciences occultes. Elle est imprimée dans les travaux de l'Institut international de bibliographie.

Un rapide exposé va vous faire connaître la nature de cette classification.

Soit 6, Sciences appliquées. 61, Sciences appliquées à la médecine. 612, Physiologie. 612.8, Physiologie du système nerveux. 612.82, Physiologie du système nerveux central. 612.821, Physiologie psychologique. 612.821.7, Physiologie du sommeil et du somnambulisme et des phénomènes analogues, on pourra indexer sous le nombre commun 612.821.71, tout ce qui se rapportera au somnambulisme, à l'hypnotisme et aux sciences métapsychiques.

De sorte que tout ce que nous avons à étudier peut être groupé sous ce chiffre 612.821.71, qui fera rentrer la métapsychique dans le cadre général des connaissances humaines.

Ce chiffre lui même a été subdivisé ainsi :

- 612.821.711 Théorie de l'hypnotisme.
- 612.821.712 Hypnotisme chez l'homme.
- 612.821.713 Hypnotisme chez les animaux.
- 612.821.714 Lucidité (ou métapsychique subjective).

Ce chapitre à son tour est subdivisé de la manière suivante :

- 612.821.714.1 Lucidité, ou clairvoyance.
- 612.821.714.2 Hallucinations véridiques.
- 612.821.714.3 Prémonitions.
- 612.821.714.4 Télépathie.
- 612.821.714.5 Suggestion mentale.
- 612.821.714.6 Baguette divinatoire.
- 612.821.715 Spiritisme, télékinésie et métapsychique objective.
- 612.821.715.01 Théories.
- 612.821.715.09 Histoire.
- 612.821.715.1 Mouvements sans contact et raps.
- 612.821.715.2 Apports.
- 612.821.715.3 Matérialisations.
- 612.821.715.4 Photographies.
- 612.821.715.5 Maisons hantées.
- 612.821.715.6 Ecriture directe.
- 612.821.715.7 Lévitations.
- 612.821.715.8 Biographies et monographies sur certains médiums.
- 612.821.715.9 Autres phénomènes dits occultes.
- 612.821.716 Spiritisme en général : métapsychique à la fois objective et subjective.

Il me semble bien qu'il sera avantageux pour nos recherches de mettre en

bientôt peut-être ; et ce jour là les sciences psychiques auront enfin trouvé leur *Compendium*, leur *Manuel*, leur *Traité élémentaire*. Une science n'est vraiment constituée que lorsque elle peut donner, aux étudiants et aux maîtres, un livre qui la résume et l'expose. Nous avons des centaines de *Traités*, excellents d'ailleurs, pour la chimie, la physiologie, la physique, l'algèbre, l'astronomie, la psychologie même. N'est-il pas désirable que, profitant des richesses éparses, patiemment amassées de toutes parts, quelque penseur ingénieux et sagace se dévoue à les colliger, séparant le bon grain de l'ivraie, laissant résolument de côté ce que est douteux et incomplet pour ne prendre que les faits dûment et solidement constatés ?

Je ne prétends pas que l'auteur doive remplacer, là où il y a doute, les faits incertains par des affirmations : ni proposer comme parfaites des théories incomplètes. Je dis seulement qu'en 1905, après les innombrables récits accumulés depuis trente ans sur les sciences psychiques, les matériaux d'un grand ouvrage sont préparés. Et j'ajoute que l'heure de ce livre est venue. Les temps sont murs, pour ce grand *Traité élémentaire et rationnel des sciences occultes*.

Mais, en prononçant ce mot, je m'aperçois qu'il faut donner un nom à cette nouvelle science. Ne l'appelons pas science *occulte* ; car toutes les sciences à leur début sont occultes ; elles cessent de l'être lorsque elles sont moins incertaines. L'astrologie a cessé d'être une science occulte lorsqu'elle s'est transformée en astronomie ; l'alchimie, quand elle s'est transmutée en chimie.

Je ne trouve pas que le mot de *sciences psychiques* soit très heureux ; car il est bon nombre de phénomènes pour lesquels l'explication par la $\psi\acute{\upsilon}\chi\eta$ est insuffisante. Par exemple qu'y a-t-il de psychique dans les bruits qui se font entendre en une maison hantée ? Il vaut mieux employer un mot qui ne constitue pas déjà en lui-même une hypothèse, et une hypothèse manifestement insuffisante. En outre la psychologie classique est l'étude de l'âme humaine et de l'intelligence. Elle aurait droit, elle tête des divers mémoires ou des récits qui seront donnés, soit dans nos *Proceedings*, soit dans le *Journal*, soit dans un recueil scientifique quelconque, ces indications décimales ; car, en les classant par fiches, on aura ainsi une excellente bibliographie, qui, si l'on prend soin de se tenir au courant des choses publiées, sera rapidement abondante.

Mais je ne puis qu'effleurer le sujet ; j'espère pouvoir lui donner prochainement toute l'extension qu'il mérite.

aussi, au titre de science psychique; et cependant elle ne fait pas partie du cercle de nos études. Elle a son histoire, ses traités didactiques, ses professeurs, son enseignement, à ce point qu'on l'enseigne même dans les gymnases.

Repoussons aussi le mot de *sciences spiritiques*, plus mauvais peut-être encore que les précédents; car l'hypothèse des *esprits*, malgré sa simplicité un peu naïve, et la grande vogue qu'elle a acquise à l'heure présente, n'est pas, dans l'ensemble, recevable.

Alors je vous proposerai une expression nouvelle—avec quelque timidité, comme il convient quand on se hasarde à un néologisme—c'est celle de *sciences métapsychiques*.

Vous savez tous quelle extraordinaire fortune a eue le mot *métaphysique*. Il s'agissait, dans l'œuvre d'Aristote, de dénommer les chapitres qui suivaient les chapitres consacrés aux sciences physiques, et alors, tout naturellement ils furent appelés chapitres métaphysiques, c'est à dire suivant les chapitres de physique. De même, semble-t-il, nous pourrions à cette science nouvelle, dont nous prévoyons le rapide essor, dont nous avons déjà les premiers linéaments fragmentaires, donner le nom, en somme assez simple, de *métapsychique* (*μετὰ τὰ ψύχικα*). Evidemment, si cette métapsychique n'existait pas, il serait absurde de créer un mot nouveau pour une erreur. Mais je ne crois pas, malgré toutes les crédulités aveugles qui ont compromis cette science, qu'il soit possible de nier tous les faits. Et la meilleure preuve que je puisse donner de ma conviction à cet égard, c'est précisément que je propose un mot, le mot de métapsychique, pour les phénomènes qu'elle est appelée à établir.¹

Si donc vous acceptez, au moins provisoirement, le mot de *Traité de métapsychique*, pour ce livre que nous espérons,

¹Ces lignes étaient écrites quand j'ai appris que le mot de métapsychique était moins nouveau que je ne le croyais. A l'issue de l'adresse que je présentai à la S.P.R. le 6 février 1905, M. Wincenty Lutoslawski vint me trouver et m'annoncer, à ma très grande surprise, qu'il avait appliqué le mot de métapsychique à peu près de la même manière. En effet, dans un de ses ouvrages (*Wykłady Sagiellonskie*, t. II., 1902, Krakow, XXIII.) se trouve cette phrase (qu'on traduit du polonais): "Je nomme métapsychique cette partie des recherches psychologiques qui traite des phénomènes anormaux de la conscience individuelle, phénomènes étudiés récemment, surtout par la *Soc. for Psychological Research*." Mais, comme on voit, j'ai donné une bien plus grande extension au mot Métapsychique, en comprenant sous ce terme tout ce qu'on appelait jusqu'à présent sciences occultes.

nous allons examiner quels en seraient les principaux chapitres, et comment on pourrait le concevoir. Cet exposé va nous donner l'occasion de préciser quelles sont les limites de cette science, ou plus exactement quel est pour elle le vaste champ à parcourir, presque sans limites.

III.

Vous m'excuserez des détails techniques, parfois un peu arides, dans lesquels je serai forcé d'entrer. Mais je crois que notre devoir strict est d'aborder sérieusement les choses sérieuses, et de faire, de la science qui nous occupe, autre chose qu'un divertissement littéraire.

Tout d'abord il y aura dans la métapsychique deux parties bien distinctes, encore que sur les confins, comme toujours, elles se confondent; à savoir les phénomènes purement psychiques, et les phénomènes exclusivement matériels.

Sont phénomènes purement psychiques ceux dans lesquels il ne se décèle aucune mouvement, aucune vibration de la matière. Ainsi une prémonition, un fait de télépathie, une suggestion mentale, ne supposent pas l'existence d'une force agissant sur la matière, tandis qu'un apport, des raps, une matérialisation, supposent de toute nécessité qu'alors la matière a été mue et actionnée par une force autre que les forces psychologiques attribuées à notre être. Dans les phénomènes psychiques il n'y a aucune objectivité. Tout se passe en mouvements de l'âme, en sentiments, perceptions, émotions, tandis que, dans les phénomènes matériels, l'objectivité est complète.

Au premier abord il semble que la distinction soit absolue. Nullement. Elle est très malaisée à établir dans bon nombre de cas.

Par exemple, voici une prémonition donnée par des raps. Les raps sont phénomène matériel; et je suppose que, dans le cas actuel, ces raps aient été obtenus sans contact. Au contraire la prémonition est phénomène psychique. Faudra-t-il classer cette observation dans l'un ou l'autre groupe?

De pareilles difficultés se présentent dans toutes les sciences; et il ne faut jamais concevoir nos classifications que comme des procédés analytiques, commodes pour l'enseignement et l'étude, mais ne répondant pas à la complexité des phénomènes.

Un phénomène, lorsqu'il se produit, ne se préoccupe pas de savoir s'il va rentrer dans la physique, ou la chimie, ou la psychologie, ou la mécanique. C'est un phénomène, voilà tout; et cela lui suffit. Mais pour la facilité de l'exposition nous le faisons rentrer dans les cadres plus ou moins artificiels que nous avons établis; et nous devons nous résigner d'avance à considérer notre classification comme inadéquate à la réalité des choses.

Pour en revenir à l'exemple cité, nous dirons que, dans cette prémonition par raps, il y a un double aspect au phénomène; 1°, le côté mécanique, matériel (vibrations de la table); 2°, le côté psychique, intellectuel (prémonition). L'étude des raps doit être faite à part, comme celle de tous les phénomènes matériels, en tant que phénomènes matériels. Mais un chapitre spécial dans l'étude des raps doit être consacré aux phénomènes psychiques, intelligents, qui se révèlent par le moyen des raps, et qui par conséquent leur donnent une signification psychologique.

Prenons une comparaison qui rendra plus claire cette dissociation d'un phénomène unique en apparence. Voici un message téléphonique qu'on se propose d'étudier complètement. Il faudra donc faire deux études séparées; d'abord analyser tout ce qui est la mécanique même de la transmission; l'appareil récepteur, les fils conducteurs, la vibration des plaques téléphoniques, etc. Ce sera l'étude physique du téléphone. L'étude psychologique viendra en second lieu. Il faudra alors examiner ce qui a été dit dans le message même, la portée et la signification des paroles qui ont été prononcées. Et il paraît bien qu'une distinction complète entre l'acte mécanique produit, et la signification intellectuelle, morale, de cet acte est facile à instituer.

Dans d'autres conditions encore les phénomènes psychiques et matériels sont en partie confondus. Un fait de télépathie est le plus souvent exclusivement subjectif. Toutefois, dans quelques très rares récits, il est dit que la mort d'une personne éloignée a été annoncée à plusieurs personnes à la fois, par une apparition ayant tous les caractères de l'objectivité, de sorte qu'il n'est guère possible alors de dire que le phénomène a été seulement psychique.

On pourrait multiplier les exemples, et je crois bien que

l'incertitude grandira à mesure qu'on approfondira l'étude de ces choses. Mais, au fond je ne crois pas que la difficulté soit insurmontable; et je persiste à penser que ces deux grands chapitres fondamentaux de la métapsychique peuvent être conservés (A) phénomènes matériels. (B) phénomènes non matériels.

Maintenant vous m'excuserez si, passant en revue les uns et les autres, je fais une excursion rapide dans le vaste domaine de la science qui nous intéresse. Je serai forcément très incomplet; et je ne pourrai donner qu'un résumé, très sommaire. Mais même ce résumé, trop bref, nous permettra de fixer l'état de la *Métapsychique* aujourd'hui, en 1905. Je m'imagine que, dans quelques lustres, nos petits neveux le liront avec quelque curiosité, pour rire de notre ignorance, et s'étonner de nos étonnements.

En tout cas—et je tiens à ce qu'il n'y ait sur ce point aucune méprise—le fait de mentionner tels ou tels ordres de phénomènes, et de les faire rentrer dans un cadre commode à un exposé didactique, n'implique nullement que je croie à leur réalité. Je n'en parle que pour tenter une classification d'ensemble, et nullement pour affirmer leur existence. D'ailleurs les phénomènes que je vais tenter de classer sont, pour la plupart, plus surprenants que démontrés. Et, si je me hasarde ainsi à parcourir ce vaste domaine de la science métapsychique, c'est que nulle part peut être, elle n'a été, même en résumé, traitée dans son ensemble, comme je vais témérairement essayer de la faire devant vous.

IV.

Ce qui caractérise les phénomènes matériels, c'est qu'alors des forces physiques naturelles sont mises en jeu; lumière, mouvement, vibrations sonores, forces qu'on ne peut expliquer par une émotion de la conscience: car il se produit alors évidemment un dégagement de force matérielle qui s'extériorise, qui peut être enregistrée par un appareil, et dont la réalité peut être constatée par des procédés rigoureux de contrôle.

A priori on peut admettre que ce dégagement de force n'a rien d'in vraisemblable; car les forces de la nature, connues de nous, ne sont rien à côté des forces inconnues. Nous pouvons,

et même nous devons faire ce dilemme très élémentaire. Ou nous connaissons toutes les forces de la nature : ou nous ne les connaissons pas toutes. Or l'hypothèse que toutes les forces de la nature nous sont connues est tellement absurde qu'il suffit de l'énoncer pour en établir l'absurdité. Ce qui est invraisemblable, et radicalement invraisemblable, c'est que nulle force physique n'échappe à nos sens, et qu'il n'existe pas de vibration que nos chétives sensations ne nous aient jusqu'à présent révélée.

Donc l'existence de forces inconnues agissant sur la matière est possible, vraisemblable, rationnelle. Mais le problème qui se pose n'est pas de savoir si ces forces sont possibles et vraisemblables ; car la question est jugée, et bien jugée. Il s'agit de les constater et de les démontrer d'une manière irréfutable.

La tâche paraît d'abord facile. En réalité elle est d'une difficulté extrême.

Prenons pour exemple le phénomène matériel le plus simple ; la vibration d'une table sans contact. Il semble que ce soit là vraiment le phénomène mécanique élémentaire. Un grand nombre d'observateurs, et de bons observateurs, affirment avoir été témoins de ce fait. Combien cependant cette affirmation trouve-t-elle de contradicteurs ? On oppose la supercherie, l'obscurité, le défaut d'attention, les mouvements musculaires inconscients, les craquements du bois, dus à l'humidité ou à la chaleur ; les déplacements des tendons (Schiff), et autres allégations qui sont aussi invraisemblables que le phénomène lui-même. Pourtant il y a eu, dans d'innombrables séances métapsychiques, raps, ou déplacements d'objets, ou mouvements de la table. Cela ne paraît guère douteux. Même si, en exagérant quelque peu les scrupules de la rigueur scientifique, on élimine les cas, authentiques cependant, où les séances ont eu lieu dans l'obscurité, il restera encore un bon nombre de séances, tenues en demi-lumière, ou en pleine lumière, pendant lesquelles on a entendu des vibrations dans le bois d'une table que personne ne touchait, vibrations que le hasard et l'humidité n'ont pas pu produire.

Si je n'avais pas pris le parti de rester aujourd'hui dans des généralités, je pourrais vous rapporter à ce sujet d'assez nombreuses expériences personnelles. Peut-être, quelque jour, si vous le permettez, aurai-je l'occasion de vous faire le récit de mon

expérimentation sur les raps : mais de tels protocoles d'expériences ne valent que par le détail ; et les détails à développer sont si abondants que leur exposé méthodique me mènerait beaucoup trop loin. Je me contenterai donc de vous dire que, selon moi, le phénomène des raps sans contact, toute réserve faite quant à leur cause, me paraît un fait certain.

Il est d'autant plus important à établir, ce fait, que mille faits négatifs ne prouvent rien contre un seul fait positif. Supposons qu'une seule fois, en des conditions reconnues irréprochables, il y a eu vibrations (intelligentes) dans une table, que personne ne touchait et ne pouvait toucher, c'est assez pour que le fait existe, défiant toute critique, et inattaquable. Cent mille expériences négatives ne prouveront rien contre ce fait unique, s'il a été dûment établi. Or vraiment, si nous voulions analyser ce qui a été écrit à ce sujet depuis les expériences de Sir William Crookes jusqu'à celles de J. Maxwell, pendant trente ans, dans les livres et journaux de sciences métapsychiques, nous ne serions pas embarrassés pour trouver trente ou quarante cas de raps bien nettement perçus par tous les assistants, en pleine lumière, sans contact avec la table. Probablement, dans cette réunion, il ne se trouve pas un seul auditeur, ayant assisté à quelques séances, qui n'ait eu l'occasion, au moins une fois dans sa vie, de constater dans de bonnes conditions ce phénomène, et d'être convaincu de sa réalité.

Si ces sortes de vibrations moléculaires des corps n'ont pas pris rang encore dans la science classique, c'est que la science classique est, à juste raison, très sévère, très exigeante en fait de preuves. On ne peut la blâmer de cet excès de sévérité. Mais, ce qui est moins à son honneur, c'est qu'elle s'est contentée de juger—et de nier—sans expérimenter sérieusement, de telle sorte qu'elle n'est guère qualifiée pour apprécier des faits qu'elle n'a point voulu étudier.

Au fond cette hésitation de la science ne doit pas nous surprendre ; car il faut pour l'étude de pareils phénomènes un peu plus qu'une patience ordinaire ; un peu plus même que la patience du savant, qui est proverbiale. Tout d'abord on doit se dégager des anciens préjugés, se contenter, au début, d'expériences mal faites, incertaines, que l'on peut graduellement rendre moins fautives, mais qui aux commencements se produisent dans des conditions absolument défectueuses. Et

alors il faut que le savant *dépouille le vieil homme*, comme on dit, se contente d'expériences imprécises, au début, avec la ferme volonté de les rendre peu à peu de plus en plus rigoureuses; de sorte que, pour mener à bien cette progression, ce n'est pas moins de quinze séances, au bas mot, qui seront nécessaires. Mais combien sont-ils, les médecins, chimistes, mathématiciens, ingénieurs, qui ont pendant quinze séances expérimenté avec un vrai médium, reconnu comme tel, et qui ont formulé, à la fin, une conclusion défavorable? S'ils ont eu le courage d'entreprendre ces expériences, ils n'ont pas eu le courage, après quelques échecs, de continuer: et leur patience a été bientôt lassée.

Quelques uns cependant ont poursuivi, sans se laisser rebuter, et alors, il faut bien le reconnaître, ils ont fini par être convaincus. L'histoire de la métapsychique est pleine de conversions de ce genre. Seulement ces conversions ne se produisent pas brusquement. Ce n'est pas la lueur fulgurante qui, en quelques secondes, éblouit pour toujours l'apôtre Paul sur le chemin de Damas. C'est une lente et progressive conquête, disputée aux doutes, aux retours en arrière, aux angoisses, aux déficiences expérimentales, aux suspicions peut-être. Je puis en parler par ma propre expérience. Cette route n'est pas un sentier de fleurs. Elle est semée de pierres, et de ronces; et, quand on l'a parcourue, on regrette parfois de s'y être engagé, de ne pas avoir pris le parti, plus sage et plus lâche, d'accepter l'opinion commune, et de sommeiller dans la crédulité naïve et aveugle des spirites, ou dans le dédain solennel et négateur des savants, ou dans l'indifférence satisfaite et apathique de l'immense majorité du troupeau humain.

Revenons aux phénomènes matériels: et concluons qu'ils existent. Il n'y a pas là de quoi mettre en péril la science contemporaine. Déjà un premier caractère différencie ces forces matérielles métapsychiques des autres forces matérielles connues. Elles sont intelligentes. Et alors tout de suite apparaît un redoutable problème. Sont-elles humaines ou extra-humaines?

Pour ma part, je l'avoue sans crainte, je ne vois *à priori* aucun motif scientifique pour repousser l'intervention d'êtres intelligents, autres que l'homme. L'hypothèse de puissances

intellectuelles, évoluant autour de nous, dans cette immensité mystérieuse de la nature, n'est ni invraisemblable, ni impossible. Mais ce n'est pas sur ce terrain de la possibilité ou de la vraisemblance qu'il faut placer la discussion. L'hypothèse est possible, assurément : il s'agit de savoir si elle est nécessaire.

Or jusqu'à présent cette nécessité ne me paraît pas évidente : car les limites de l'intelligence humaine, et des forces matérielles ou psychiques qu'elle dégage, n'ont pas été tracées encore. Plus on approfondit la conscience, plus on y découvre des couches profondes, inconnues de nous-mêmes ; des consciences subliminales, des personnalités secondes ; se superposant, se succédant, tour à tour, et prenant les apparences de personnalités réelles, bien distinctes de notre *moi*.

Et qui sait ce que peut produire la vibration nerveuse ? Elle produit de la chaleur et de l'électricité. Elle provoque des actions chimiques. Elle donne une forme matérielle à la pensée. Pourquoi n'agirait-elle pas sur les objets inertes ? On pourrait fournir à cet égard bien des arguments, favorables ou contraires ; mais il ne me semble pas sage d'aborder cette discussion. Il ne paraît pas que les temps soient murs encore. Avant de faire la théorie d'un fait, il faut déterminer le fait lui-même, et nous serons fidèles à la vraie méthode expérimentale, en recherchant les conditions d'un phénomène, avant de disserter sur sa cause même.

D'autant plus que le phénomène lui-même est bien loin d'être accepté universellement et reconnu par tous comme authentique. Alors à quoi bon nous perdre dans les nuages de la théorie ? Établissons solidement la réalité des faits, et nous pouvons être certains que la théorie en sera donnée un jour.

Je me suis étendu sur le phénomène des raps : car c'est le plus simple des faits matériels de la métapsychique ; mais il en est d'autres encore, nombreux et variés, plus compliqués d'ailleurs, dont il convient de faire mention.

- 1°. *Phénomènes mécaniques autres que les raps.*
- 2°. *Phénomènes lumineux.*
- 3°. *Transports d'objets à distance ou apports.*
- 4°. *Autres phénomènes objectifs.*

1°. Les phénomènes mécaniques autres que les raps sont très variés : et on peut les classer en plusieurs catégories.

(A) Déplacements d'objets.

De ces déplacements d'objets le plus simple paraît être celui de la *table tournante*. Des volumes ont été écrits sur ce sujet. Mais toute cette littérature ne me semble pas très démonstrative; car, dans la plupart de ces expériences, les mains touchaient la table. Or personne de vous n'ignore que des mouvements musculaires inconscients, chez des personnes de très bonne foi, peuvent produire des déplacements matériels considérables.

Pourtant il y a eu souvent des soulèvements complets de la table sans contact, ou des mouvements de la table sans contact. On pourrait faire de très probantes citations de phénomènes de ce genre; mais ce serait abuser de votre patience que d'en entreprendre l'énumération, même incomplète.

Ce ne sont pas seulement les tables qui peuvent se mouvoir. D'autres objets peuvent être déplacés, tantôt plus petits, tantôt même plus volumineux qu'une table. De sorte que, tout bien considéré, *l'extériorisation du mouvement*, suivant l'expression heureuse de mon ami A. de Rochas, paraît bien être un phénomène réel, et dûment constaté.

Cependant ne nous félicitons pas trop. Ce fait n'est pas encore reconnu par la science officielle; et des mesures précises n'ont pas été prises encore. Même, hélas! quand on a voulu l'enregistrer dans des conditions rigoureuses de contrôle, des difficultés se sont présentées, toujours renaissantes. Chaque nouvel appareil scientifique a semblé arrêter le développement des phénomènes. Les instruments méthodiques ont plus ou moins échoué, de sorte que les expérimentateurs futurs ont encore beaucoup à faire. Il s'agit de déterminer les conditions de ces mouvements à distance. Je dirais même, au risque de vous paraître quelque peu sceptique, qu'il s'agit d'en donner une démonstration plus rigoureuse que toutes celles qui ont été données jusqu'ici.

On voit tout de suite combien nous voilà loin de l'hypothèse spirite. Car, s'il était prouvé qu'il y a attraction ou répulsion des objets matériels par des forces émanant d'un médium, ce ne serait pas du tout une preuve qu'on puisse alléguer en faveur de l'existence des *esprits*.

A vrai dire, pour être équitable, il faut reconnaître que ces

phénomènes kinétiques sont bien plus marqués quand on admet, dans une séance, l'hypothèse spirite. Tout se passe comme si le médium n'était apte à dégager cette force qu'en la croyant fournie par une intelligence étrangère.

Je rappellerai ici qu'on a construit des appareils très simples, dont le principe est le suivant. Un fil de soie porte à l'une des extrémités une petite tige métallique qui se déplace sur un cadran gradué. Le tout est enfermé dans un cylindre de verre, de sorte que les mouvements de l'air ne peuvent déplacer la barrette suspendue. Cet appareil (magnétomètre de Fortin) a été employé par H. Baraduc pour déceler le soi-disant fluide vital dégagé par les divers individus, variant avec chaque personne, variant aussi suivant l'état de santé et de maladie de ces personnes. Même il paraîtrait, d'après Baraduc, que la nature morale de chaque individu serait caractérisée par un spécial déplacement angulaire de cette petite machine. J'ai à peine besoin de vous dire que les observations faites par Baraduc sont souvent enfantines, et ne donnent guère envie de s'engager dans une pareille étude. Cependant le problème mériterait de tenter les physiciens, d'autant plus qu'après tout c'est une question de physique. Quelle est la part des influences électriques, ou thermiques, que l'approche de la main exerce sur le fil de soie? La question est assez ardue; mais, jusqu'à ce qu'elle soit complètement élucidée, il ne sera pas permis de parler du fluide vital. Il nous faudra de bien d'autres preuves pour admettre l'existence d'une nouvelle force dans le monde.

(B) *Lévitations.*

Une autre forme, tout à fait spéciale, des actions mécaniques d'origine métapsychique, ce sont les lévitations.

Dans les vies des saints les lévitations ont été souvent racontées. Mais ces récits de miracles sont sujets à caution; et nous devons être très réservés à ce sujet.

Toutefois, de nos jours, il est difficile de nier qu'il y a eu des lévitations authentiques. Tout en attribuant une prodigieuse habileté aux magiciens de l'Inde, on ne peut guère, en présence de certaines narrations précises, douter que quelques fakirs aient pu s'élever au dessus du sol. N'ayant rien vu d'analogue, je ne puis à cet égard émettre une

opinion qui ait quelque autorité : je constate seulement qu'on aurait le plus grand tort de ne pas examiner de très près les allégations que des témoins judiciaires nous apportent. Un officier de marine français, assez sceptique, et nullement porté au mysticisme, m'affirmait récemment avoir vu un fakir s'élever de quelques centimètres, lentement, au dessus du sol ; et cela, en plein jour, sans vêtements, sur le grand chemin.

Dans la vie de Douglas Home, se trouvent aussi relatés de nombreux cas de lévitation, attestés par des témoins de moralité et d'intelligence irréprochables. On a peine à supposer qu'ils ont mal vu et mal observé un fait si facile à observer et à voir. Dira-t-on que D. Home a réussi à les tromper ainsi cinquante fois et davantage ? En vérité, s'il ne s'agissait pas d'une science expérimentale où l'expérience doit être répétable, et si le témoignage humain était suffisant, les preuves de la lévitation de D. Home seraient surabondantes.

Mais nous devons être pour la métapsychique plus sévères que pour une science historique. Nous la voulons expérimentale, non traditionnelle, et nous ne nous laisserons pas de demander l'expérience après le témoignage ; ne nous estimant satisfaits que si les conditions de la lévitation peuvent être précisées, et si cet extraordinaire phénomène peut être enregistré par des appareils scientifiques.

(C) *Écriture directe.*

Avec l'écriture directe, obtenue sans qu'il y ait contact entre la plume écrivante et le médium, nous avons une série de phénomènes plus étranges encore. Naturellement, si déjà il y avait quelque hésitation à affirmer la lévitation, l'incertitude est plus grande encore pour affirmer l'écriture directe. En effet, peu de médiums seraient capables de la produire ; et la fraude est relativement facile.

Il faut donc soumettre les cas observés à une critique sévère, et provoquer de nouvelles expériences.

(D) *Autres phénomènes mécaniques.*

(a) *Maisons hantées.*

Il paraît que de grands phénomènes mécaniques se produisent dans les maisons hantées. Mais l'histoire des maisons hantées est presque légendaire, et il est fort malheureux

que, malgré bien récits, bien des discussions, finalement il ne reste pas grand chose de définitivement établi. Si la solidité des preuves était en rapport avec l'intensité des bruits, rien ne serait plus certain que la hantise des maisons; car il s'y produirait des fracas effroyables. Mais il ne faut pas se laisser étourdir par tout ce tapage; et, comme pour la lévitation, comme pour l'écriture directe, nous devons dire que *sub judice lis est*.

(β) *Vibrations vocales.*

On a prétendu que parfois des voix se faisaient entendre, accessibles à plusieurs personnes, soit dans les maisons hantées, soit dans certaines séances de matérialisations.

(γ) *Empreintes; moulages, contacts.*

Le plus souvent, quand des matérialisations se produisent, ce ne sont que des phénomènes lumineux; mais on a rapporté quelques cas d'empreintes de moulages laissés par ces formes matérialisées. Malheureusement les exemples qu'on a cités n'ont rien de bien démonstratif, et, dans quelques cas, il semble bien qu'il y a eu fraude, puisqu'on a trouvé dans l'empreinte reçue les traces d'un léger tissu dont les mailles s'étaient imprimées sur l'argile.

Cependant je ne conclurai pas négativement; car dans bon nombre de cas, en des conditions bien rigoureuses, des contacts de mains ont été perçus.

S'il est vrai que des formes lumineuses se sont montrées à des expérimentateurs, il est alors tout aussi vrai que ces formes pouvaient exercer une action mécanique extérieure. La même force qui a produit une lumière peut tout aussi bien exercer une action mécanique de contact. En fait, beaucoup de spirites affirment avoir touché les mains de ces fantômes, et dans les récits de séances il est souvent question de mains, grandes ou petites, chaudes ou froides, avec bagues ou sans bagues, sèches ou humides. Je me doute bien qu'il y a dans ces récits imagés une grande part d'illusion, et je sais qu'il est très difficile d'être absolument sur que les mains du médium sont solidement tenues de manière à éviter toute fraude. Mais, quand on est bien averti qu'une fraude est possible, on prend toutes les mesures nécessaires, de sorte que tout n'est pas erroné peut-être. Donc,

fidèle à mon principe d'être aussi réservé dans la négative que dans l'affirmative, je ne prétendrai pas que des actions mécaniques ne puissent être exercées par des forces ayant apparence humaine. Si elles ont revêtu les formes et les mouvements d'un homme qui vit, pourquoi n'exerceraient-elles pas les mêmes forces mécaniques que l'homme vivant ?

Ces différentes manifestations de forces occultes (que nous appellerons maintenant, si vous m'y autorisez, métapsychiques), sont peut-être sans relation entre elles. Nous les groupons provisoirement sous la dénomination commune de forces mécaniques. Mais il n'est pas certain qu'elles relèvent de la même cause. C'est par ignorance peut-être que nous les rangeons dans un même chapitre : et l'avenir peut fort bien nous prouver qu'elles sont profondément dissemblables, et sans lien réciproque.

2°. La second groupe des phénomènes matériels comprend les phénomènes lumineux ; c'est à dire la production de lumières, de lueurs, de fantômes. En procédant du simple au compliqué, nous avons successivement :

1°. Lumières et lueurs informes.

2°. Formes lumineuses, plus ou moins distinctes.

3°. Formes lumineuses bien distinctes, et matérialisations complètes.

Pour se rendre compte de l'extrême difficulté à émettre une affirmation ou une négation formelles, je me contenterai de rappeler l'étonnante histoire des rayons N.

Il y a peu d'années un savant physicien de Nancy, le professeur Blondlot, découvrit que divers corps émettent des rayons qui diffèrent des rayons électriques ou thermiques ; et il appela rayons N ces nouvelles vibrations. Il put même en donner les constantes physiques et les longueurs d'onde. Puis, poursuivant ses recherches, il montra que ces rayons ont la propriété de renforcer la luminosité du sulfure de calcium. Avec d'éminents collaborateurs, M. Charpentier, M. Bichat, M. Meyer, professeurs à Nancy, il fut amené à constater que les centres nerveux, et les muscles (quand ils se contractent), dégagent des rayons N ; car une plaque recouverte de sulfure de calcium devient avec plus d'intensité phosphorescente quand on l'approche du cœur, ou de la tête ; de sorte que tout phénomène vital, une pensée, comme une contraction musculaire, serait une source de rayons N.

Voilà donc des phénomènes constatés par des physiciens et des physiologistes dans des conditions d'expérimentation qui paraissent faciles, puisque il n'est pas besoin des complications qu'exige toute séance de métapsychique, et que la présence d'un médium n'est pas nécessaire. Eh bien ! malgré cette facilité apparente, la preuve des rayons N n'a pu être donnée encore. Et des savants distingués doutent de leur existence. Il est possible que les rayons N n'existent pas, même dans les objets inanimés, là où M. Blondlot avait cru les trouver, de sorte que le monde des physiciens connaît maintenant les angoisses d'incertitude qui avaient semblé jusque là réservées aux seuls adeptes des sciences occultes ; et qu'il se partage en deux groupes : celui qui croit à l'existence des rayons N, et celui qui n'y croit pas.

On multiplie les expériences, on accumule les preuves, on prend des photographies de l'étincelle électrique, du sulfure de calcium phosphorescent, et cependant le doute subsiste encore. Les journaux scientifiques sont remplis de discussions qui s'engagent sur un phénomène dont la constatation se présente comme très simple ; et finalement ces rayons N sont si vigoureusement et universellement contestés que même ceux qui avaient eu d'abord le plus de confiance dans les affirmations de M. Blondlot sont forcés de suspendre leur jugement et d'attendre ; encore que, selon toute vraisemblance, M. Blondlot n'ait pas commis cette colossale erreur.

Cet exemple est bon à méditer ; car il nous prouvera à quel point un fait nouveau est parfois difficile à établir quand les méthodes d'investigation et de contrôle sont incertaines.

Si les hésitations sont telles pour un fait d'ordre purement physique, comme la phosphorescence du sulfure de calcium par l'action des rayons N, combien ne sont-elles pas plus légitimes encore quand il s'agit d'affirmer l'existence de lumières, de vapeurs lumineuses, de formes matérialisées ? Tout concourt à entourer l'expérience de mystère. D'abord le phénomène ne peut être provoqué que par un petit nombre de personnes. Rares sont les médiums ; plus rares encore les médiums qui donnent des matérialisations. On ne peut ni les toucher ; ni s'approcher d'eux ; ni déranger le cours de l'expérimentation par de brusques contrôles. Une demi lumière est indispensable, parfois même l'obscurité.

Toute modification du plan préparé arrête la manifestation attendue. Le médium s'épuise vite, et l'expérience ne peut se refaire qu'à d'assez longs intervalles.

Il semble, à voir toutes ces complications, que l'étude des rayons N ne soit que jeu d'enfant, à côté de l'étude des lumières et des fantômes.

Vous ne serez donc pas surpris si, malgré les éclatantes affirmations d'observateurs sagaces et dignes de foi, malgré une abondante série de preuves, que les journaux spirites ont accumulées, nous pensons que notre jugement doit être réservé.

Mais cette réserve peut s'interpréter de deux manières bien différentes; et en effet deux observateurs, ayant une opinion diamétralement opposée, peuvent, s'ils sont sages, rester l'un et l'autre dans la même réserve. Même c'est leur devoir à tous deux de réserver leur jugement. Le premier croit que le phénomène existe; que les preuves sont nettes, que les phénomènes observés sont convaincants; le second, au contraire, pense que la supercherie et l'illusion jouent le principal rôle dans ce qu'il a vu ou cru voir, comme dans les récits qui lui ont été rapportés. Et alors ces deux hommes, que je suppose sages l'un et l'autre, reconnaîtront, l'un qu'une affirmation absolue est quelque peu téméraire; l'autre, qu'une négation formelle est impossible, sans nouvelles expérimentations.

Pour ma part, si vous me permettez d'indiquer l'opinion vers laquelle je penche, je serais tenté de croire à la réalité de ces formes lumineuses, de ces lueurs, de ces matérialisations. Car j'hésite à prétendre que ce qui a été vu et décrit par R. Wallace, par William Crookes, par O. Lodge, par A. de Rochas, par bien d'autres encore, tout cela ne fut que supercherie, fraude et illusion. Et d'autre part j'ai cru voir dans de bonnes conditions, en des séances—dont le détail ne peut être donné ici—des phénomènes analogues. Voilà pourquoy, en présence de ces faits, ma réserve—et une réserve dont je tiens à faire ici la formelle affirmation—est plutôt une réserve favorable.

Assurément la production de forces lumineuses, de fantômes, de formes matérialisées, n'est pas de certitude aussi grande que la composition de l'ammoniaque, ou la loi des oscillations du pendule; mais il me faudrait une bien désespérante série d'expériences négatives pour me forcer à rejeter comme

légendaires et définitivement erronés les phénomènes lumineux objectifs de la métapsychique.

D'ailleurs qu'importe ? Qu'on y croie ou qu'on n'y croie pas, au fond la conclusion doit être la même ; c'est que de nouvelles expériences sont nécessaires. Même les sciences qui semblent achevées sont dans un état de perpétuelle évolution qui nécessite sans cesse de nouvelles recherches. A plus forte raison alors pour les sciences à peine nées, embryonnaires encore, comme la nôtre, où tout est inconnu, méthodes et fins dernières ; où toute affirmation des faits les plus simples est à la fois téméraire et incertaine.

Avant de terminer ces courtes paroles relatives aux apparitions fantomatiques, il faut tenter de distinguer ce qui en elles est objectif et ce qui est subjectif. Dans le chapitre consacré aux faits matériels, nous n'avons pas fait allusion à ce que vous avez, avec Fr. Myers, appelé *hallucinations véridiques*. Car dans ce cas il est probable que nul phénomène matériel, dans le sens vulgaire du mot matériel, ne s'extériorise. La perception, à distance, d'une mort ou d'un danger, ou d'un événement, se traduit dans l'esprit du *voyant* par un phénomène visuel. Il croit voir ou entendre quelqu'un ou quelque chose. Mais probablement c'est par la pensée qu'il voit, de sorte qu'il symbolise sa pensée en une forme matérielle extérieure. Aussi les cas, nombreux et authentiques, où une vision véridique a été constatée, ne doivent ils pas être classés parmi les phénomènes matériels. Il faut, pour parler de leur matérialité, que l'apparition (ou la lumière) soit perçue par plusieurs personnes, ou qu'elle ait déplacé des objets, ou qu'elle ait impressionné une plaque photographique.

Puisque je prononce le mot de photographie, il me semble que c'est à obtenir des photographies irréprochables que nous devons tendre. De même que M. Blondlot et M. Charpentier l'essayent en ce moment pour les rayons N, de même nous devons pour les matérialisations faire tous nos efforts afin d'en obtenir des images, qui soient le souvenir indélébile et le témoignage impérissable du phénomène. Je ne sais vraiment pas pourquoi, maintenant que la photographie est à la portée du premier écolier venu, les expérimentateurs n'emploient pas davantage ce procédé de contrôle, qui est si simple, et qui entraînerait la conviction.

Si nous possédions vraiment quelques photographies prises dans des conditions de certitude absolue, toute discussion deviendrait inutile, et la preuve serait faite. Mais, par malheur, jusqu'à présent, ces photographies irrécusables n'existent pas. Peut-être en est-il qui n'ont pas été publiées encore; mais, s'il faut se contenter de celles qui ont paru dans les livres, journaux et revues, elles n'entraînent pas la conviction.

Il est d'ailleurs assez remarquable que les images photographiques de fantômes—je ne parle que de celles qui ont été publiées—prêtent largement à la critique; car les personnages ont des apparences de mannequins ou de poupées; de sorte que c'est pour le public qui les regarde un sujet de facile raillerie. Mais cette apparence de fraude ne me touche guère, et ce n'est pas là dessus que porteront mes objections. J'admets fort bien qu'une matérialisation ne puisse revêtir nettement les apparences d'un être vivant, et qu'elle ait forme de poupée; car, en vérité, nous ne savons rien des conditions dans lesquelles un fantôme apparaît sur une plaque photographique. Donc, si la photographie a été prise sur une plaque marquée à l'avance, si cette plaque a été développée par l'expérimentateur lui-même, savant de bonne foi incontestée, sans que cette plaque ait jamais, pendant un seul instant, quitté ses mains, alors, sans que cela me trouble beaucoup, j'accorderai à l'image fantomatique toutes les apparences qu'on voudra, de poupée ou de mannequin, à condition, bien entendu, qu'on puisse plusieurs fois répéter cette expérience. Mais précisément le manuel opératoire de ces photographies spirites est confié à des praticiens peu scrupuleux, et ils ont toutes facilités pour faire les manipulations nécessaires à la production d'une image parasite juxtaposée au personnage principal.

Puisque notre Société, dont l'autorité est si grande, a des ressources notables, il me paraît que c'est surtout vers des constatations photographiques que nous devrions diriger nos efforts. Après tout le métier de photographe n'a rien de bien difficile, quand on ne cherche pas à obtenir des chefs d'œuvre artistiques, mais seulement un contrôle documentaire, permanent, de ce que nos yeux ont rapidement perçu. Donc, chaque fois qu'un cas nous est signalé où il y a eu des lumières, des apparences lumineuses, des matérialisations visibles à tous, il faudrait aussitôt en recueillir la photographie, et cela

avec toutes les précautions nécessaires pour que pas un doute ne puisse s'élever sur l'authenticité de la plaque.

Si la certitude expérimentale est absolue, peu nous importera alors que l'image soit dramatique ou non : il suffira qu'une tache blanche quelconque, non imputable à une erreur de technique, apparaisse sur la plaque ; car c'est une question d'intérêt secondaire que d'obtenir des formes ayant apparences humaines. Nous devons borner nos désirs à de plus modestes constatations : une lumière, si vague qu'elle soit, nous suffira, pourvu que ne soient pas vagues les conditions dans lesquelles elle a été recueillie et fixée. Ce ne sont pas les phénomènes les plus extraordinaires et les plus compliqués que nous devons rechercher ; mais ceux qui sont le plus rigoureusement observés. Notre grand effort doit tendre à obtenir des faits, élémentaires peut-être, mais des faits auxquels on ne puisse rien reprocher.

Si les photographies authentiques ne sont pas plus abondantes, c'est probablement parce qu'on n'a pas daigné, bien à tort, essayer d'enregistrer de simples stries lumineuses. On a voulu probablement attendre que ces lueurs aient pris l'apparence d'une personne humaine. Car on avait toujours l'espoir que cette image humaine, reproduite par la photographie, serait une preuve de la survivance. Mais j'oserai dire qu'il faut reléguer au second et même au troisième plan ces aspirations, d'ordre non scientifique, vers la survivance de la personnalité humaine. Attachons nous seulement à ceci, qui est probable, quoique encore contestable ; qu'autour de certains rares médiums, dans des conditions particulières, il se forme des vibrations lumineuses, que la rétine humaine peut percevoir, et que la plaque photographique peut enregistrer.

Plus tard il ne sera pas interdit d'aller plus loin, et ce n'est pas moi qui conseillerai la timidité aux expérimentateurs. Mais la sagesse conseille de commencer par le commencement. Quand on construit un édifice, on se préoccupe d'abord de lui donner des bases solides, et on ne va pas mettre de décorations au chapiteau et au fronton, quand les assises mêmes, sur lesquelles repose le temple, sont encore branlantes.

Nous concluons donc que, pour tous ces phénomènes lumineux, ces fantômes, ces apparitions, il faut, de parti pris, abandonner les récits sensationnels, et faire comme les physiciens

devant un difficile problème de physique ; c'est à dire s'occuper de ce qui est simple, éliminer les causes d'erreur et les complications, ramener le problème à sa forme élémentaire.

Y a-t-il, par la force que dégagent les médiums, production de vibrations lumineuses ? Si oui, on peut le constater par la photographie, et la voie de la recherche à suivre est tout indiquée.

3°. Un des plus curieux chapitres à écrire sur les phénomènes matériels, c'est celui qui a trait aux apports, transports, pénétrations de la matière. Je ne vois aucune impossibilité à de pareils faits. Les récentes et troublantes expériences relatives au radium nous prouvent que le vieux dogme de l'incrédibilité de la matière est peut-être erroné, de sorte que je ne me refuse nullement à *priori* à admettre que des apports puissent exister.

Mais de là à conclure qu'ils existent, il y a loin, et je ne crois pas être trop timide en disant que tout ce chapitre de la métapsychique matérielle (mutations et transports de la matière) est l'incertitude même.

Dans les phénomènes objectifs nous devons faire rentrer encore :

4°. Les odeurs intenses survenant immédiatement, comme il en est souvent cité dans les expériences de Home ou de Stainton Moses.

5°. L'action des fluides vitaux (?) ou des passes magnétiques, ou de l'aimant, sur les organismes sains et normaux.

Par ces côtés la science métapsychique est aux confins de la physiologie même, mais d'une physiologie bien incertaine encore. Une expérience—plus extraordinaire peut-être que tous les récits les plus extraordinaires—est racontée par Home. Il pouvait prendre dans sa main, et sans se brûler, un charbon incandescent. Que faut-il penser de ce fait prodigieux ?

L'aimant exerce-t-il une action sur les organismes, comme l'a prétendu Reichenbach ?

Les phénomènes d'extase, d'hibernation humaine ; les ensevelissements de fakirs par exemple, sont-ils réels ou apocryphes ?

Et quant à l'action sur l'évolution des maladies, il a été dit, que, même en dehors de toute suggestion, il y a influence du *fluide magnétique* humain sur les organismes vivants.

Ainsi, par exemple, on aurait guéri de très jeunes enfants par l'imposition des mains.

Tout cela n'est que l'indication des chapitres qu'on aurait à écrire ; et n'implique nullement l'opinion que les phénomènes sont réels. Je veux dire seulement qu'ils méritent l'étude. Je ne prétends pas qu'ils soient vrais ; je dis seulement qu'ils peuvent l'être ; car il faut se méfier des négations *à priori*, et, si extraordinaire que nous semble l'influence d'un médium ou d'un magnétiseur sur l'évolution d'un phénomène morbide, il serait téméraire d'assurer que cette influence est impossible.

V.

Tels sont à peu près, si je ne me trompe, les principaux phénomènes objectifs de notre science. Nous arrivons à la seconde partie ; c'est à dire à la métapsychique subjective.

Ici les méthodes doivent être toutes différentes, car il ne s'agit plus de constater des phénomènes matériels, mais bien des faits psychologiques.

Un parallélisme intéressant se présente tout de suite entre ce qui est subjectif et ce qui est objectif. De même que nous avons fait rentrer, par définition même, dans la métapsychique objective, les faits que les forces physiques actuellement connues et classées ne peuvent expliquer, de même vont ressortir de la métapsychique subjective tous les phénomènes de connaissance que nos procédés ordinaires de connaissance ne permettent pas d'expliquer.

Les connaissances de l'homme dérivent de sensations et de raisonnements. Nous sommes par nos sens en relation avec le monde extérieur ; nous pouvons à la suite de ces sensations conclure, raisonner, induire, déduire ; et nulle connaissance du monde extérieur ne peut, d'après la science classique, dériver d'autres procédés d'information.

Par exemple je puis connaître la mort de Pierre, parce que je la vois, ou parce qu'on me la raconte ; ou encore parce que, le sachant très malade hier, je peux conclure avec presque certitude qu'aujourd'hui il est mort. La connaissance que j'ai de la mort de Pierre sera un phénomène mental simple, que des sensations ou des déductions rationnelles expliquent d'une manière adéquate. Mais, si, ayant laissé tout à l'heure

Pierre en parfait état de santé, sans qu'aucun danger le menace, et me trouvant trop loin pour le voir ou l'entendre, je viens tout à coup à affirmer que Pierre est mort, au moment même où il est frappé par un coup imprévu, alors il s'agira d'un phénomène de métapsychique; puisque aucune sensation, aucun raisonnement ne pourront expliquer la connaissance de ce fait.

Nous définirons donc les phénomènes métapsychiques subjectifs, des connaissances *qui ont d'autres origines que nos perceptions et nos raisonnements ordinaires.*

Si j'insiste sur ces définitions, c'est que souvent des confusions s'établissent, dont le point de départ est une incertitude dans la définition même. Pascal, qui s'y connaissait, déclarait que la science est une langue bien faite. Il est donc bien important de préciser tous les termes qu'on emploie.

Alors cela nous conduit tout de suite à discuter ce point fondamental. Existe-t-il pour l'intelligence humaine des connaissances ayant d'autres origines que nos perceptions et nos sensations? Toute la question est là, et, si nous répondons par l'affirmative, il s'ensuivra qu'il y a une métapsychique d'ordre subjectif.

Il est vrai qu'on parle souvent du hasard, comme jouant un grand rôle dans ces soi-disant connaissances. Mais je crains fort que les sceptiques, qui, lorsque nous leur racontons une expérience, viennent nous objecter qu'elle est due à un hasard heureux, n'aient guère réfléchi sur le hasard et le calcul des probabilités.

Je tiens à discuter ici, très brièvement, cette influence du hasard; car on le fait intervenir à tort et à travers, et on s'abandonne à bien des fantaisies, dès qu'on parle des probabilités.

Quand un chimiste fait une pesée, il ne songe jamais que le hasard a pu lui donner le chiffre qu'il obtient. Assurément il a pu se tromper en comptant les poids qui sont sur la balance; ou il a eu affaire à un produit impur; ou il s'est servi d'une balance défectueuse; en un mot il a pu faire une mauvaise expérience, mais ce n'est jamais par hasard que tel ou tel chiffre a été trouvé. Et alors notre chimiste ne se préoccupe pas du hasard, et il a raison; car, à trouver un nombre qui est seulement de trois chiffres, la probabilité

d'avoir tel chiffre plutôt qu'un autre par le fait du hasard est de $\frac{1}{1000}$, c'est à dire tout à fait négligeable.

Que, dans une expérience de *lucidité*, ou de *télépathie*, avec un jeu de cartes; on dise une première fois la carte pensée; la probabilité est de $\frac{1}{52}$. Certes le hasard peut donner ce chiffre; mais que deux fois de suite la carte pensée soit indiquée, alors la probabilité devient très faible $\frac{1}{2704}$; et, quoique le hasard puisse encore donner ce chiffre, *il ne le donne pas*.

Implicitement on reconnaît cela, quand on n'est pas aveuglé par le désir de trouver un défaut à des expériences irréprochables; car, dans la pratique quotidienne de la vie, on ne fait jamais intervenir ces probabilités faibles. Si vous jouez à l'écarté avec un individu qui quatre fois de suite retourne le roi, vous serez tenté de supposer qu'il triche; car la probabilité $\frac{1}{4096}$ de retourner le roi quatre fois de suite est très faible.

Donc quand, dans des expériences de typtologie, un nom est obtenu, le nom de Marguerite par exemple, même si l'on ne tient compte que des quatre premières lettres, la probabilité d'avoir *Marg.* . . est de $\frac{1}{254}$ soit $\frac{1}{390.625}$; c'est à dire extrêmement faible. Si, jouant à l'écarté, vous avez devant vous un adversaire qui retourne le roi six fois de suite, vous serez tenté de quitter la partie, bien persuadé que ce n'est pas le hasard qui lui a fait avec cette persistance obtenir l'heureuse carte, qui le fait gagner.

La probabilité, pour chacun de nous, de n'être plus vivant dans deux heures est moindre que la probabilité d'obtenir le mot de Marguerite en tirant au hasard les lettres de l'alphabet. Et cependant nous passons notre existence à supposer que nous serons encore vivants dans deux heures: et nous avons raison.

C'est pour ne pas avoir suffisamment réfléchi à ces problèmes qu'on objecte le hasard. Résolument je repousse cette objection, car elle n'est fondée sur rien, et elle est contraire à toute la tradition scientifique. Objectez, si vous voulez, les défauts de l'expérience—et vous aurez, hélas! presque toujours raison—mais ne parlez pas de hasard; car pour un expérimentateur il n'y a pas de hasard.

Ce n'est pas le hasard qui rend incertaines nos expériences de métapsychique subjective; c'est notre défectueuse méthode d'expérimentation, car nous ne savons pas tenir compte suffi-

samment d'un phénomène psychologique d'essentielle importance, trop souvent méconnu, la mémoire inconsciente.

Il y a eu de ce fait tant de graves erreurs qu'il convient de nous expliquer formellement à cet égard.

Autrefois la mémoire était considérée comme une faculté intellectuelle très simple. Il est des faits dont on se souvient, d'autres dont on ne se souvient pas : par conséquent la limite est nettement tracée entre les réminiscences et les créations mentales. D'un côté, des choses que l'on a connues et qui reparaissent : de l'autre des choses qu'on ignore, et qu'on construit par l'imagination et le raisonnement.

Mais l'étude approfondie de l'hypnotisme a eu, entre autres, ce précieux avantage de nous faire connaître toute une série de phénomènes bien singuliers sur la mémoire, et de nous révéler que la mémoire est une faculté *implacable* de notre intelligence ; car aucune de nos perceptions n'est jamais oubliée.

Dès qu'un fait a frappé nos sens, alors, de manière irrémédiable, il se fixe dans la mémoire. Peu importe qu'il puisse être évoqué à notre gré : peu importe que nous ayons gardé la conscience de ce souvenir ; il existe, il est indélébile. Il va s'unir et se combiner à d'autres perceptions également inconscientes ; et il peut, dans certains états mentaux particuliers, reparaître en son intégrité, alors que, s'il fallait en croire le témoignage de notre conscience, toute trace semble en avoir à jamais disparu. Mais non ! Il n'a pas disparu. Il dort en nous, complètement ignoré de nous.

En un mot, *la conscience oublie souvent ; l'intelligence n'oublie jamais.*

Cette mémoire inconsciente, subliminale, pour employer l'heureux mot de Fréd. Myers, est toujours éveillée, attentive, perspicace. Elle se mêle à tous nos sentiments, à toutes nos volontés, à tous nos actes ; elle agit, pense, raisonne ; elle constitue un véritable *moi*, mais un *moi* inconscient, qui a, sur le *moi* conscient, cet avantage inappréciable de ne jamais laisser perdre la plus petite parcelle de ce que les choses et les hommes, dans le cours de notre existence, nous ont apporté.

On voit combien sont graves les conséquences de cette persistance des souvenirs. Nous avons tous, les uns et les autres, —surtout ceux dont la vie est déjà à son déclin—lu, vu,

entendu, tant et tant de choses qu'il est impossible, malgré la sûreté de notre mémoire, d'affirmer que nous n'avons pas à tel ou tel moment lu telle phrase, entendu telle parole, assisté à tel évènement. Aussi peut-on, en parfaite bonne foi, certifier que ce que nous pensons, en ce moment même, est une création mentale, et non un souvenir; car non seulement nous ignorons l'avoir su, mais même nous ne comprenons pas comment nous avons pu le savoir. Si nous pouvions contempler cet immense amas de souvenirs dont notre mémoire inconsciente est la vigilante gardienne, nous serions véritablement stupéfaits; car nous trouverions, dans ces images qui ont fixé tout le passé de notre existence, des trésors absolument ignorés.

Aussi bien les phénomènes de soi-disant lucidité ne sont ils souvent que des souvenirs; et, quoique la personne lucide affirme, en toute sincérité, et avec tout l'énergie d'une bonne foi ardente, qu'elle ne savait rien, ce n'est pas assez pour que nous affirmions sa lucidité. Il faut que la preuve nous soit donnée qu'il lui a été absolument impossible d'avoir jamais rien su du fait qu'elle affirme. Ignorer aujourd'hui n'est rien; il faut prouver qu'on a toujours ignoré. Si l'on était plus sévère à constater cette impossibilité d'avoir su autrefois, on éliminerait beaucoup de phénomènes, de merveilleuse apparence, explicables très simplement par la réviviscence de souvenirs que la conscience avait totalement oubliés.

Bien entendu, en établissant cette discussion, je ne prétends rien dire qui ne soit parfaitement connu de tous les psychologues. Ce sont même des vérités très banales; mais dans l'interprétation des faits de lucidité, on les a négligées si souvent qu'il faut insister sans cesse sur cette cause d'erreur.

Abordons maintenant la classification des phénomènes subjectifs. Nous les envisagerons en eux-mêmes, sans rechercher quel a été leur mode de production, sans nous demander s'ils dérivent ou non de phénomènes matériels. Certes, quand un phénomène matériel, tel que les *raps*, est la cause immédiate d'un beau phénomène psychique de lucidité, l'expérience est doublement intéressante; mais l'analyse scientifique doit dissocier ce phénomène unique, et examiner séparément la matérialité des vibrations mécaniques (*raps*), et le sens des paroles prononcées (message).

C'est ce dernier point seulement que nous étudierons à

présent, puisque plus haut nous avons examiné le côté objectif et matériel des phénomènes.

Il me paraît que tous les phénomènes subjectifs peuvent recevoir la classification suivante :

- (1) *Lucidité*, c'est à dire connaissance de faits que les procédés ordinaires de connaissance n'ont pas pu apporter.
- (2) *Personnification*, c'est à dire affirmation d'une personnalité autre que celle du médium, et avec des caractères véridiques, que ni la perspicacité ni les souvenirs antérieurs ne peuvent donner.
- (3) *Langages étrangers*, totalement inconnus.
- (4) *Prémonitions*.

Je passerai en revue ces divers phénomènes.

(1) *Lucidité*.

La lucidité—ou clairvoyance—est le phénomène subjectif élémentaire. A ce titre elle mérite toute notre attention. On peut même dire que tous les phénomènes subjectifs, quels qu'ils soient, pourraient être compris sous le nom générique de lucidité.

Nous diviserons la lucidité en deux classes qui parfois se confondent, parfois se dissocient. A. *La lucidité télépathique*. B. *La lucidité non télépathique*.

La lucidité télépathique, c'est ce qu'on appelle souvent la transmission ou la suggestion mentale ; autrement dit la connaissance plus ou moins nette par la conscience A des émotions d'une conscience voisine B, sans qu'il y ait évidemment de phénomène extérieur appréciable qui puisse révéler à A l'émotion de B.

Au contraire la lucidité non télépathique s'exerce sur des choses inconnues de toute personne vivante, de sorte que la conscience A a connaissance de faits qu'aucun homme ne peut connaître.

Chacune de ces deux variétés de lucidité peut se produire expérimentalement ou fortuitement.

Mais—ce qui est assurément très malheureux—la lucidité expérimentale est un chapitre beaucoup plus court et beaucoup plus incomplet que la lucidité fortuite, occasionnelle.

Evidemment je laisse de côté ces soi-disant expériences de transmission mentale dans lesquelles il y avait contact.

comme dans le jeu du *Willing game*, si répandu dans les salons, qui a passé dans les séances de cirque et de café concert, où un individu très naïf tient la main du soi-disant lucide. Dans ces cas, soit le contact de la main, soit la manière de marcher, de respirer, de s'arrêter, soit les interpellations et les physiologies des spectateurs, dirigent la sagacité du voyant bien suffisamment pour qu'il soit inutile d'admettre autre chose qu'une habile interprétation des mouvements inconscients.¹ Pour qu'il y ait vraiment lucidité, il faut que nul phénomène extérieur ne se produise, qui puisse renseigner l'opérateur. Par conséquent il ne faut pas qu'il y ait contact. S'il y a contact, tout devient incertain, et je récusé formellement toutes les expériences faites devant un auditoire crédule et ignorant, disposé par avance à admettre les balivernes qu'on va lui présenter.

Aussi, en éliminant ces très nombreuses et très peu démonstratives expériences, ne restera-t-il que quelques rares comptes rendus où la lucidité expérimentale a pu être tant bien que mal établie.

C'est peu. C'est trop peu ! Donc nous devrions faire tous nos efforts pour combler cette grave lacune, car la certitude expérimentale est d'un ordre plus élevé que la certitude empirique, et, tant que la lucidité ne sera pas établie par une assez longue série d'expériences méthodiques, rigoureuses, devant des observateurs qui gardent un silence et une impassibilité absolues, la lucidité restera un phénomène contestable.

Si la lucidité expérimentale est incertaine, d'autre part la lucidité empiriquement constatée paraît solidement établie. Mais il me paraît ici nécessaire de préciser en quoi l'empirisme diffère de l'expérimentation.

Prenons l'exemple de la lucidité se révélant par le moyen de l'écriture automatique. On sait que certains sujets peuvent écrire des mots, des phrases, parfois même de longues pages, sans avoir aucune conscience de ce qu'ils écrivent. Or deux cas peuvent se présenter : dans le premier cas une demande est faite par les assistants. Ce sera par exemple la question suivante : *quel est le frère de Marguerite ?* Si une réponse est donnée alors par écriture automatique, ce sera un cas de lucidité expérimentale.

¹ Il y a sur ce chapitre intéressant de physiologie psychologique toute une littérature abondante qu'il est inutile de mentionner ici.

Dans l'autre cas au contraire on laisse le médium écrire ce qu'il veut, sans lui rien demander, et il écrit, *Robert est le frère de Marguerite*. C'est de la lucidité empirique, car il ne s'agit pas de donner une réponse à une question posée; mais bien de dire, sans question posée à l'avance, quelque chose qui est conforme à la vérité, (et ne peut être connu par les voies ordinaires de la connaissance).

Or le plus souvent la réponse à une question demandée, question qui exige une réponse précise, n'est pas donnée. Le plus souvent le médium écrit, par l'écriture automatique, des phrases qui témoignent peut-être de sa clairvoyance, mais qui portent sur les matières qu'il a choisies lui-même, et ne répondent nullement aux questions qui lui ont été adressés.

Assurément, dans un examen, un professeur ne se contenterait pas de ces procédés évasifs. Un étudiant, à qui l'on demande: *que savez-vous de l'hydrogène?* doit répondre sur l'hydrogène. Et les juges seraient mal disposés pour lui, s'il leur parlait alors des combinaisons du mercure. Mais il faut probablement traiter les médiums autrement que des candidats qu'on interroge. Certains écrits automatiques, quoique ne répondant pas aux questions qui ont été faites, fournissent des témoignages éclatants de lucidité. On demande: *quel est le frère de Marguerite?* Si le médium répond: *le grand père de Marguerite s'appelait Simon*; ce peut être encore une très bonne preuve de lucidité au cas où l'on réussit à prouver que le nom du grand père de Marguerite a été en toute certitude absolument inconnu du médium. Mais, dans ces cas de réponse évasive, il faut toujours exercer une perspicacité vigilante; car la conscience subliminale, si elle peut choisir l'objet de sa lucidité, va inventer des supercheries qui peuvent prendre une extension redoutable.

L'analyse approfondie devient alors d'une difficulté extrême; et toute règle générale est inapplicable. Chaque cas va exiger une étude minutieuse, détaillée, sagace, pénétrante, et c'est en désespoir de cause, après avoir bien établi l'impossibilité d'une acquisition par les voies connues, qu'il faudra se résigner à admettre la clairvoyance.

Combien mille fois serait préférable une expérience faite avec un simple jeu des cartes? mais il semble, hélas! que les médiums—on les forces intelligentes qui les animent—aient

peu de sympathie pour des expériences aussi abstraites que des probabilités mathématiques. Les phénomènes émotionnels les inspirent davantage.

Même ce ne sont pas seulement les médiums, c'est encore le public, le commun du vulgaire, qui est coupable, car il est frappé par des expériences dramatiques, plus que par des expériences algébriques. La lucidité qui fera dire exactement la valeur d'une carte d'un jeu de 52 cartes, est plus démonstrative, au point de vue rigoureux de la science, que la soi-disant lucidité qui fera dire le nom de la maladie dont est mort le père de mon grand père il y a soixante ans. Pourtant l'émotion sera plus grande, et la conviction plus forte, si un médium nous dit qu'il y a 60 ans le père de notre grand père est mort d'une fluxion de poitrine, que si nous prenons sur 52 cartes une carte au hasard—un trois de pique, par exemple—et que ce même médium nous dise : c'est un trois de pique que vous avez pris.

Il me semble toutefois que les savants devraient être d'une mentalité un peu différente de la mentalité vulgaire, et je me permets de vous exhorter à tenter, plus souvent que cela n'a été fait, et en dépit des médiums eux-mêmes, ces expériences de lucidité expérimentale abstraite.

De fait, à mesure que les phénomènes émotionnels sont plus intenses, plus dramatiques, si je puis dire, les cas de lucidité deviennent plus abondants, plus remarquables.

Je le répète, au point de vue scientifique pur, c'est regrettable, car les savants ne seront pas disposés à l'indulgence pour une science qui est d'autant plus riche en faits qu'elle s'éloigne davantage de la précision scientifique. Mais vraiment nous ne pouvons guère changer la mentalité des médiums, et nous sommes forcés d'accepter les choses comme elles se présentent, sans avoir la prétention de forcer les lois d'un monde profondément inconnu, à obéir à notre ignorance.

En effet les plus beaux cas de lucidité sont peut-être ceux dans lesquels un phénomène grave, apte à provoquer une violente émotion, la mort d'un parent ou d'un ami, a été connu par une vision fantomatique. Des récits si nombreux ont été recueillis dans *Phantasms of the living*, dans le livre de C. Flammarion, dans nos Bulletins, dans les *Annales des sciences psychiques*, et dans les journaux spéciaux, que la preuve

aujourd'hui n'est plus à faire. C'est un fait avéré, aussi bien établi que la chute d'une météorite, et malheureusement aussi difficile à provoquer à point donné par une expérience.

Nous faisons rentrer ces hallucinations véridiques dans les phénomènes généraux de lucidité, encore qu'ils en diffèrent par le caractère même de cette hallucination qui a une apparence objective. Mais, sauf quelques cas, d'interprétation très difficile, il paraît bien que ces fantômes sont tout à fait subjectifs. Ils ne sont vus que d'une seule personne; ils ne se fixent pas sur la plaque photographique; ils ne déplacent pas les objets extérieurs.

Aussi la réalité matérielle de ces visions est elle très improbable.

Puisque la vision n'est perçue que par une seule personne, c'est qu'il n'y a pas de matérialisation, pas de lumière, pas de fantôme . . . et cependant il y a quelque chose, puisque le percipient a connaissance d'un fait réel.

Ce quelque chose n'est pas une forme matérialisée: c'est un phénomène extérieur, une vibration quelconque, perceptible à une seule personne, et même perceptible suivant une modalité dont la nature nous est profondément inconnue.

Je n'ai assurément pas la prétention de la pénétrer. Pourtant il est bien permis de se demander pourquoi le percipient voit une forme humaine, matérialisée, avec chapeau, canne et lorgnon. N'est-il pas probable que toute cette objectivité donnée par le percipient à son hallucination est symbolique? La connaissance d'un fait pénètre dans l'intelligence du percipient. Par quelles voies, peu importe: toujours est-il que le percipient a connaissance d'un fait, la mort de A, par exemple, et le fait qui soudainement se révèle à lui se présente alors aussitôt sous la forme symbolique d'une image.

Ce n'est qu'un symbole, car il n'y a pas de mouvement matériel extérieur, perceptible à nos sens. Mais la symbolisation est complète, et A apparaît alors au percipient avec chapeau, canne et lorgnon. Sans doute il ne pourrait comprendre A autrement, et il extériorise sa perception intérieure, après qu'elle s'est produite à lui suivant une formule qu'il ne peut définir et qu'il est forcé de traduire par une image visuelle. Le fait abstrait de la mort de A prend la forme d'un fait concret. L'idée devient une image visuelle, et le

fantôme de A, quelque apparente que soit sa forme au percipient, n'est que le symbole d'une perception dont la nature est profondément mystérieuse.

Cette opinion est d'autant plus vraisemblable que l'hallucination véridique n'est pas toujours visuelle. Elle est souvent auditive. Des paroles sont entendues qui révèlent le fait que A est mort, et ces voix sont tout aussi symboliques que le fantôme de A.

Puisque je vous parle des symboles, je puis vous en rapporter ici un assez curieux exemple, qui m'est personnel. Dans une expérience faite avec un médium, il s'agissait d'un phénomène de clairvoyance : trouver le nom de la personne qui, à ce moment précis, loin du médium même, conversait avec moi. Le choix de la personne en question fut par moi tiré au sort, sans que cela pût venir, en toute certitude, à la connaissance du médium, parmi vingt personnes différentes. Le probabilité était donc de $1/20$. Or ce jour-là le médium, étant seule chez elle, vit une forme humaine, bien caractérisée par le nom de Henri. Mais, en même temps, devant sa porte se tenait un héraut d'armes, avec hallebarde, souliers à rubans, et tricorne galonné, empêchant les autres esprits de venir dans la chambre ; car ils se précipitaient pour entrer, et il ne fallait pas qu'une confusion s'établît entre eux et Henri.

N'est-il pas évident que tout ce petit drame n'a aucune réalité ; et qu'il n'est qu'un symbole ?

Mais c'est le symbole de quelque chose qui est réel, et le mystère n'en reste pas moins tout aussi profond, car ce n'est ni le hasard, ni une excitation pathologique qui provoquent de pareils phénomènes. Ils sont en rapport étroit avec un fait vrai ; ils sont donc *véridiques*, correspondant au danger ou à la mort de A. La lucidité s'exerce par des voies absolument inconnues de nous : mais le fait d'ignorer ses modalités ne doit pas nous entraîner à la nier.

Quelques uns de nos amis émettent à cet égard une opinion que je ne puis guère partager. Ils croient que tout est expliqué et simple quand on a dit suggestion mentale, émotion provoquée chez B par une émotion de A. Les deux consciences vibreraient à l'unisson, pour ainsi dire, et il suffit que A pense à quelque chose fortement, pour qu'aussitôt B se forme le même concept.

Mais, si nous allons au fond des choses, nous verrons que la *suggestion mentale* n'explique rien. C'est un mot commode qui masque notre radicale inconnissance des choses. Qu'on l'appelle encore *télépathie*, c'est un mot heureux, que je suis tout prêt à adopter, à condition qu'on reconnaisse que, pas plus que suggestion mentale, il ne nous fournit une explication, même approximative, du phénomène. Nos intelligences ne sont pas des miroirs dans lesquelles viennent se réfléchir les vibrations des intelligences voisines; et je ne comprends en aucune manière que les angoisses de l'agonie, frappant l'intelligence de A, aillent provoquer l'image de ce même A dans l'intelligence de son ami B, qui sommeille tranquillement dans son lit, à vingt kilomètres de la maison de A. De quelque nom qu'on appelle ce fait, il est mystérieux, ignoré; ignoré quant à sa cause, ignoré quant à son essence, ignoré quant aux conditions de sa production. Et le mystère ne me paraîtra pas beaucoup plus grand si A peut lire sans l'ouvrir une lettre cachetée que la poste vient de lui remettre.

Autrement dit encore, pour bien faire saisir ma pensée, ces mots de suggestion mentale et de télépathie ne nous expliquent absolument rien, de sorte qu'entre la clairvoyance télépathique, et la clairvoyance non télépathique je ne peux vraiment trouver que des nuances. Si les faits relatifs à la clairvoyance télépathique sont beaucoup plus nombreux que les faits de clairvoyance non télépathique, c'est, je crois, qu'alors l'erreur est bien plus facile, et que des indications, conscientes ou inconscientes, ont été données, dans les cas de soi-disant télépathie, par les personnes voisines du percipient.

Mais laissons de côté cette discussion un peu technique, que je me reproche presque d'avoir abordée, et revenons aux faits eux-mêmes, c'est à dire à la lucidité envisagée en soi.

Or, vraiment, après tous les récits des magnétiseurs d'autrefois, après les innombrables comptes rendus des journaux spirites, après les faits rapportés dans des ouvrages savants et sérieux, après les témoignages historiques et les traditions, il me paraît impossible de nier que la lucidité existe.

De même que, parlant de la métapsychique objective, je vous disais que l'hypothèse de forces naturelles et matérielles, autres que celles qui sont connues de nous, est nécessaire; de

même, parlant de la métapsychique subjective, je considère comme nécessaire cette hypothèse qu'il existe d'autres procédés de connaissance que ceux qui dérivent de nos sensations normales.

Il existe dans la nature des vibrations qui émeuvent obscurément nos consciences inférieures, et qui nous révèlent des faits que les sens normaux sont impuissants à nous apprendre.

Que certains individus, les médiums, soient plus que les autres humains capables de percevoir ces vibrations, cela me paraît tout à fait certain, mais j'ai peine à croire qu'entre les médiums et les autres mortels il n'y ait pas de transitions. Il est bien vraisemblable au contraire que tout être humain est (plus ou moins) capable de lucidité. En effet, si les uns et les autres nous interrogeons nos souvenirs, nous trouverons dans notre existence des vestiges de cette extraordinaire et mystérieuse puissance intellectuelle. Qui de nous n'a pas été surpris d'apercevoir soudain au détour d'une rue une personne à qui nous venions de penser avec force, que nous ne rencontrons jamais d'habitude, et à qui nous ne songeons pas deux fois l'an? Je veux bien que de tels récits soient presque toujours trop vagues, trop informes, pour mériter d'être publiés; mais pourtant ils ont leur importance, par leur multiplicité même, et ils semblent nous prouver que nous avons tous quelque parcelle de lucidité; et qu'il faut faire une part (grande ou petite) dans notre existence intellectuelle à ces vibrations inconnues agissant sur notre conscience.

A ces vibrations inconnues il faut probablement joindre les curieux phénomènes connus sous le nom de baguette divinatoire. N'ayant pas d'expérience personnelle à ce sujet, je m'en réfère, aux beaux travaux, de si habile et savante critique, qu'a publiés M. Barrett.

Mais je ne puis m'étendre, comme je le voudrais, sur ce vaste sujet, et j'arrive aux autres phénomènes subjectifs.

(2) *Personnifications.*

J'emprunte ce terme, qui me paraît excellent, à J. Maxwell, encore que les personnifications, telles qu'elles ont été décrites par lui et par d'autres, puissent être à la rigueur considérées comme des variétés de lucidité. Ai-je besoin de vous dire qu'il vient d'exposer ses idées et ses belles expériences à ce

sujet dans un livre dont la traduction anglaise va paraître dans quelques jours ?

Cette lucidité avec personnification a un caractère tout à fait spécial. La personnalité du médium disparaît, ou semble disparaître. Elle est remplacée par un autre personnage qui entre en scène, parle par la voix du médium, écrit par la main du médium, donne des raps, en s'affirmant comme une entité distincte. Le type de ces cas de personnification, c'est le cas de Mme Piper, si bien étudié par les membres les plus éminents de cette société, entre autres par mon illustre ami, Sir Oliver Lodge. Mme Piper n'est plus là ; mais c'est George Pelham qui parle, pense et agit à sa place.

Notre savant collègue M. Flournoy a fait un récit pittoresque et instructif d'un beau phénomène de ce genre, étudié par lui avec une extrême perspicacité.

Dans les expériences de Stainton Moses, apparaissent des personnages, des guides ; *Rector*, *Imperator*, et d'autres encore, qui ont tout à fait les allures d'êtres intelligents, avec une volonté, une conscience, un langage, des goûts, qui leurs sont propres.

Souvent aussi, dans les expériences de typtologie, des raps annoncent l'arrivée de tel ou tel personnage, qui se nomme, se caractérise plus ou moins, et prend place parmi les assistants, ainsi qu'une personne humaine réelle, affirmant ses sympathies, ses désirs, ses haines, possédant son style original, manifestant tout ce qui est caractéristique d'une personnalité humaine nettement déterminée.

La première idée, très simple, qui se présente alors, est de croire à la réalité de ces personnages ; car la bonne foi des médiums est certaine, et toute l'adaptation de leur être au nouveau personnage apparu est d'une saisissante exactitude. Mais il faut bien se rappeler que, dans certains états de l'hypnose, il se produit des changements de personnalité tout à fait analogues, avec des apparences de véracité au moins aussi éclatantes. Pourtant, dans les personnifications hypnotiques, il est bien évident qu'aucune personnalité étrangère n'intervient, et que tous les phénomènes ne sont que des adaptations d'une seule et même intelligence humaine.

Je me demande alors si ces personnifications, qui jouent un si grand rôle dans le spiritisme, ne seraient pas des phénomènes du même genre.

Supposons un changement de personnalité (comme dans les cas d'hypnotisme) avec une certaine dose de lucidité, et alors nous assisterons aux phénomènes tout à fait étranges de Mme Piper par exemple, qui, étant devenue George Pelham, connaît les amis, les parents, de ce même Pelham, pense et parle exactement comme il eût parlé et pensé, s'il eût été là.

C'est une hypothèse un peu compliquée sans doute. Mais croit-on que l'autre hypothèse, celle de la survivance de George Pelham, venant, trois ans après qu'il a été enseveli et putréfié, s'incorporer dans les cellules nerveuses de Mme Piper, soit une conception simple et pleinement satisfaisante ?

Ile ne nous suffira donc pas qu'on nous dise . . . *je suis John King . . . je suis Chappe . . .* pour que nous pensions avoir affaire à la conscience de défunt John King ou de défunt Chappe. Je ne vois même pas bien encore comment John King et Chappe, à supposer qu'il s'agisse vraiment d'eux, pourraient nous prouver en toute rigueur leur existence parmi nous ; car, même s'ils nous adressent par des messages des paroles qu'eux seuls peuvent transmettre, l'hypothèse de la lucidité est une porte ouverte à une interprétation différente.

Evidemment, dans ce rapide aperçu je ne peux prétendre à trancher la question. Je vous signale seulement son importance. Car une des bases de la théorie spirite, c'est précisément cette croyance à des entités humaines, survivantes, revenant sur notre planète, dans notre monde terrestre, et affirmant leur personnalité.

(3) *Langages étrangers.*

Les deux derniers chapitres de la métapsychique subjective se rapportent aux langages étrangers et aux prémonitions.

Des langages étrangers, je n'ai que peu de chose à dire, car on ne trouve que des bribes de documents à cet égard dans les livres. Cependant j'ai eu l'occasion d'assister à un phénomène remarquable de ce genre, et peut-être quelque jour aurai-je l'occasion de publier des phrases, même des pages, qu'a écrites un médium qui ignore absolument le grec. Mais la discussion d'un tel phénomène doit être très approfondie.

(4) *Prémonitions.*

De même pour ce qui concerne les prémonitions. C'est

assurément de tous les faits métapsychiques le plus troublant, le plus incompréhensible, celui qui confond le plus notre misérable intelligence humaine. Toutefois on a pu en donner de remarquables exemples, que le hasard, bien entendu, est impuissant à expliquer.

Si étrange que soit le phénomène de la prémonition, ne nous laissons pas détourner de la vérité par l'étrangeté des apparences. Il ne s'agit pas de savoir si un fait trouble notre conception de l'univers, car notre conception de l'univers est terriblement enfantine. La discussion doit s'engager sur un terrain tout autre, et on aura à examiner s'il existe, comme je serais tenté par ma propre expérience de le croire, des faits authentiques de prémonition.

VI. CONCLUSIONS.

Me voici arrivé au terme de cette longue énumération, que j'aurais bien voulu rendre plus courte, plus attrayante surtout. Mais on a fait tant de recherches, on a agité tant de questions, que nous serions inexcusables de passer sous silence tout cet immense labeur accompli.

Si grand qu'il ait été, il est bien moindre encore que celui qui reste à accomplir. En effet, comme vous avez pu le constater, bien rares sont les phénomènes de métapsychique pour lesquels tous les doutes ont été victorieusement dissipés, et c'est à peine si nous pouvons conserver comme définitivement acquis deux ou trois phénomènes élémentaires, les raps sans contact, par exemple, et les hallucinations véridiques. Encore ces faits mêmes, quoiqu'ils nous paraissent assez bien prouvés, n'ont-ils pas jusqu'à présent pénétré dans la science officielle classique, de sorte qu'il nous faudra de grands efforts pour leur donner droit de cité.

Voilà pourquoi, n'étant pas assurés des faits, nous avons été si réservés sur les théories.

Ce n'est pas que des théories très vastes n'aient été émises. Mais elles me paraissent toutes d'une cruelle insuffisance.

Nous avons vu qu'il paraît vraisemblable que des forces inconnues agissent soit sur la matière, pour provoquer certains phénomènes matériels, soit sur l'intelligence humaine pour donner la lucidité.

Faire la théorie de ces phénomènes matériels et de cette

lucidité, c'est chercher en quoi consistent les forces qui leur donnent naissance.

Deux hypothèses se présentent tout de suite à nous. Ces forces inconnues sont humaines ou extra-humaines.

(α) Si elles sont humaines, il faudrait alors supposer à notre organisme nerveux la puissance de s'extérioriser par des mouvements sans contact (télékinésie), et la puissance de percevoir des phénomènes extérieurs que nos sensations ordinaires ne nous révèlent pas (clairvoyance).

(β) Si ces forces sont extra-humaines, il faut supposer qu'il existe dans l'univers des forces intelligentes pouvant interférer dans les choses de notre monde terrestre, mouvoir des objets et agir sur notre pensée. Cette hypothèse comporte elle-même deux sous-hypothèses bien distinctes selon que ces forces extra-humaines sont (β') des êtres (intelligents) complètement différents de l'homme ou (β'') des consciences d'hommes ayant vécu.

Autrement dit ces forces sont soit des génies, des *δαίμονες*, des élémentaux, des anges, pouvant communiquer avec les hommes; soit des âmes humaines ayant quitté le corps, et poursuivant leur existence psychique après la décomposition du corps.

C'est cette dernière théorie, très simple, qui est celle des spirites; et il est inutile d'insister pour montrer qu'elle soulève de terribles objections.

Quant à la théorie qui admet l'existence d'êtres intelligents complètement différents de l'homme, elle n'est guère défendue que par les théologiens pour des raisons qui ne sont pas d'ordre expérimental.

Reste la théorie qui attribue tout à des forces humaines: elle est peu séduisante, et elle ne s'appuie sur aucune preuve solide.

Nous voici donc en face de trois théories également invraisemblables et irrationnelles, ce qui nous permettra sans doute d'en proposer une autre.

Mais rassurez vous tout de suite. Elle ne sera ni longue à exposer, ni difficile à comprendre; car cette nouvelle théorie, explicative des phénomènes, je ne la saurais formuler, ne la connaissant pas, ne prévoyant même pas ce qu'elle peut être.

C'est une théorie x que l'avenir nous révélera.

Oui ! je crois bien que, dans un temps très prochain, après que de nouveaux faits seront constatés, après que d'habiles expérimentateurs, aidés par de puissants médiums, auront mis en lumière des phénomènes qui sont encore ténébreux, nous serons amenés à modifier si profondément toutes nos conceptions sur la métapsychique que nous aurons d'autres hypothèses à formuler que celle des *anges*, des *esprits*, ou des *effluves humains*. Cette théorie *x*, inconnue, qui est inattaquable puisqu'on ne la formule pas, a toute chance d'être vraie, aussi vraie que la théorie de la sélection était vraie avant Darwin, que la théorie de Képler était vraie avant Képler, que la théorie chimique était vraie avant Lavoisier, que la théorie de l'électricité était vraie avant Ampère, Faraday, Maxwell et Hertz.

Avant que les découvertes fondamentales de ces sciences eussent été faites, on n'avait émis que des théories absurdes, (comme la théorie du phlogistique, par exemple, ou la théorie géocentrique). La vérité n'avait été ni prévue ni soupçonnée. Et je crois bien qu'il en est de même pour la théorie de la métapsychique, théorie que personne, je crois, n'a encore ni prévue, ni soupçonnée.

Assurément, au lieu de nous décourager, cette constatation d'insuccès doit nous engager à multiplier nos travaux avec prudence, audace, patience.

Jusqu'à présent nous ne connaissons que des phénomènes épars. Le lien qui les réunit nous échappe. Soit. Il ne nous échappera pas toujours. Un jour viendra où une explication en sera donnée, différente de toutes celles que notre ignorance a construites. La découverte est peut-être très simple ; mais il faut bien savoir qu'elle n'a pas été faite encore : car, quoique plusieurs des phénomènes racontés soient véritables, toutes les théories qu'on a édifiées sur eux sont ridicules.

Mais ne perdons pas l'espérance. Ayons confiance dans la science qui nous ouvre des horizons illimités ! Ne savons nous pas que la science seule diminuera les misères et les douleurs humaines ? Ne savons-nous pas que l'esprit de solidarité et de fraternité internationales grandit par l'étude de ces nobles problèmes ?

Donc, que notre conclusion soit conforme à la devise de l'homme vraiment digne d'être homme : *Laboremus !* Travaillons.

XXI.

By THE RIGHT HON. GERALD W. BALFOUR.

November 12th, 1906.

LOOKING at the list of past Presidents of our Society I use no mere conventional form of speech when I say that I am much more sensible of the honour which the Council have done me in asking me to accept the office than of any pretensions I possess of fitness to hold it. There is hardly one of my distinguished predecessors who has not taken an active and even eminent part in the work of Psychical research. I unfortunately can make no such claim. Although a member of the Society almost from the year of its foundation, I must sadly confess that I have in no way shared in its labours nor so much as contributed a single paper to its *Proceedings*. While others have written and worked, I have only been able to read and ponder the evidence which they have accumulated, and even that only in the intervals of a busy life otherwise employed. In these circumstances if I venture to submit to you some *obiter cogitata* of one who has hitherto been a sleeping partner in the firm, it is to your kind indulgence that I must trust to carry me through the task.

One of our former Presidents has recorded his opinion that the simplest exercise of telepathic influence—the power for instance which some people think they possess of making others turn round and look at them by a mere exertion of will—would, from the purely scientific point of view, if it were really established, be more extraordinary, more mysterious, more worthy to excite intellectual curiosity,

than the annihilation of the planet on which we live by collision with some hitherto unknown body travelling through space. The latter event, he argued, however dramatically extraordinary, would involve no modification or even extension of accepted theories regarding the laws which govern the movements of the celestial bodies. On the other hand the direct action of one mind on another would seem to introduce us to a region ordered according to other laws than those which obtain in any department of experience which received Science has made its own.

In contrast with this statement may be set the emphatic declaration of Professor Flournoy that if telepathy did not exist, it would be necessary to invent it. "Direct action" he tells us "between living beings is a thing so completely in harmony with all we know of nature, that it would be difficult not to assume it *à priori*, even in the absence of any perceptible indication of the fact. How is it conceivable," he goes on to ask, "that the activity of such complex seats of chemical phenomena as the nervous centres should not be accompanied by the emission of various undulations, X, Y, or Z rays, that pass through the skull like the sun through a pane of glass and proceed to act, no matter what the distance, on the corresponding centres inside other skulls? The question is merely one of intensity."

These two expressions of opinion seem at first sight in direct conflict; and no doubt they proceed from very different conceptions of the real nature of telepathy and of its *modus operandi*. On the subject of this difference I shall have more to say in the sequel. In the meantime let me point out that in a limited sense it is possible to reconcile the two views; for we may admit the extraordinary and even epoch-making character of a discovery, and yet when once it has been made, feel that it fits in with metaphysical or scientific presuppositions in a way that ought to have made us anticipate and look out for it beforehand.

It is doubtless in consequence of some such presuppositions that I have never personally felt oppressed by any sense of antecedent improbability in the phenomena of telepathy.

Unlike Professor Flournoy, however, my presuppositions have been metaphysical rather than physical or mechanical; and as in this respect I fancy my case is somewhat exceptional, an attempt to approach the subject from this standpoint may not be altogether without freshness or interest for members of the Society.

Our ordinary conception of the world presented to us in experience represents it as consisting of a multitude of individual existences or things, connected together under conditions of space and time. Enquiry into the ultimate nature of the elements of reality, and into their relations to each other and to the whole of which they are parts, belongs admittedly to the realm of metaphysical speculation. But even the simple and unelaborated description I have just given is saturated with metaphysical ideas. The fact is, we are all of us metaphysicians, even when we are least aware of the fact. Common sense itself is an inveterate metaphysician, and all that the most gifted philosophic genius can aspire to accomplish is the transmutation of the crude ideas of common sense into something more nearly approaching, or perhaps I should rather say less hopelessly remote from, a clear and coherent system.

I need hardly say that I have no intention this afternoon to ask you to engage in any such enterprise. I do not propose either to enter upon a metaphysical discussion or even to lay down dogmatically any ideas of my own on the universe at large. But as, in every general view of the connection of things in a common world, we all practically start with *some* presuppositions, I shall invite you, in the case of certain presuppositions which I will briefly state, to give them temporary admission to your minds in a purely provisional way, and then to consider in what direction they lead us. The ideas for which I ask this favour make no claim to novelty, and are far from being metaphysical paradoxes. On the contrary, they may fairly be said to have behind them a very respectable body of philosophic authority.

Consent then for the moment to assume with me that the world consists of a plurality of individual existences or real things which not only coexist in space and are subject

to changes in time, but also continuously interact with each other so as to form a connected system in which each part at once determines and is determined by the rest, and a change in each is *ipso facto* a change in all the others. Consent further to admit that centres of psychical activity or minds, as well as centres of physical activity constituting the material world, are to be included among these individual existences, which accordingly fall into two kinds, in appearance at least of disparate nature.

It is of course evident that these propositions occupy only a fraction of the metaphysical field, and would have to be taken as subject to modification and qualification in any attempt to fit them into a systematic whole. Even as they stand they will at once suggest to any student of metaphysics a legion of difficult questions, which it is impossible for me to pursue on this occasion. Volumes have been written upon these questions in the past; volumes will no doubt be written on them in the future; and whether mankind will be more successful in reaching a final conclusion than were those irrepressible metaphysicians among Milton's fallen angels, who "found no end in wandering mazes lost," when discussing similar topics, is a matter on which I should not like to express a confident opinion.

If however this uncertainty be objected to my present procedure, I reply with the double plea already advanced. In the first place, thinking beings cannot really rid themselves of metaphysical presuppositions, however much they may deceive themselves into thinking this to be possible. In the second place I do not ask you to accept these particular presuppositions as either true or adequate, but only to adopt them provisionally as working hypotheses. As such it may perhaps be counted in their favour, that on the whole they correspond more closely to common-sense beliefs than do most metaphysical constructions, and further that they may possibly be found, as we advance, to have an unexpectedly suggestive bearing on the phenomena of telepathy with which I am concerned in this Address.

It is to this application of them that I proceed.

A world of reciprocal determination in which each element of reality is conceived as acting upon and being acted upon

by every other, must evidently, if any kind of change is admitted into it, form a system in a continuous state of process. Its condition as a whole at any given moment will be at once effect and cause; effect of its condition as a whole in the moment immediately preceding, and cause of its condition as a whole in the moment immediately following.

This principle of totality in causation must not however be so interpreted as to exclude the possibility of distinguishable chains of causal relation between individual elements or groups of elements in accordance with general laws. This is, in fact, a necessary assumption without which the empirical sciences could not advance a single inch. For the whole work of these sciences is to ascertain from experience the particular laws which govern the relations of different kinds subsisting between real things, and therefore presupposes that such laws exist and are discoverable.

Now we admit that real things fall into two kinds: on the one side psychical existences or minds; on the other side the physical elements which underlie the material world. It may be that we ought not to represent the distinction as absolute. It may be that every element of reality unites in itself a dual aspect, psychical and physical. On this view there would be no mind or soul entirely without physical activity, nor any material element wholly destitute of psychical attributes, and the difference between them would pass into a difference of degree. I wish not to exclude this possibility, nor to regard it as inconsistent with our presupposition.

But for my present purpose it is not necessary to soften away the distinction between mind and matter in this fashion. I am content to accept the disparity, only insisting that it is not to be pushed to the point of denying all possibility of interaction between them.

Let me now carry you a step further. In a world such as that which I have asked you to conceive, you cannot legitimately separate existing things from the relations between them. For those relations belong to, even though they may not exhaust, the essence of the things. Therefore to distinguish between kinds of things is to distinguish

between kinds of relations. If the elements of reality fall into two kinds, centres of psychical activity and centres of physical activity, and if every element of reality interacts according to general laws with every other, it would certainly seem that there must be relations of interaction between them of at least three kinds, according as the interaction takes place between physical and physical, between physical and psychical, or between psychical and psychical.

Now interaction between the physical elements of reality is generally admitted, and the laws in accordance with which it takes place form the subject of the various branches of Physical Science.

Interaction between the physical and psychical elements of reality is not so generally accepted, and the difficulty of conceiving any causal relation between matter and mind has been so strongly felt as to lead to theories which either deny the reality of the one or of the other, or else ascribe the undoubted correspondence between body and mind to a perpetual miracle or to a pre-established harmony. According to our view they reciprocally determine each other: but in any case the correspondence itself is admittedly subject to laws; and the ascertainment of these laws belongs to that province of psychology which is known as psycho-physics.

Under the same general head of interaction between psychical and physical existences, a place might have to be found for the phenomena of telæsthesia and telekinesis, should the evidence be such as to establish the reality of those phenomena.

There remains the question of direct interaction between psychical existences. Does such interaction really obtain? Will a science of its laws ever come into being?

These are questions which our presuppositions drive us to ask, and to which they seem to suggest, and even to require, an affirmative answer. But let me once more remind you, I have no desire to dogmatise. Even granting the reasoning be sound, the presuppositions themselves may be erroneous.

If however I have succeeded in inducing you to follow me thus far, you will understand why it is that speaking for myself I am predisposed to accept the reality of telepathic phenomena, and at least to sympathise with Professor Flournoy, if I cannot go quite the length of agreeing with

him, when he says that telepathy would have to be invented even if no experiential evidence in favour of it existed. You will also understand that I have been led to this conclusion by reasons very different from those which have guided the distinguished Professor himself; and indeed that he and I mean by telepathy very different things. I mean by it direct interaction between psychical existences or minds. Professor Flournoy also, in the passage I have already quoted, speaks of "direct action between living beings" as being completely in harmony with all that is known of nature. But action which is conceived as taking place by means of undulations propagated through a physical medium is not "direct" action in the sense in which I use the term. Indeed if it is legitimate to distinguish, as we have agreed to do, between mind and brain, the *modus operandi* of action between mind and mind would be, according to Professor Flournoy's view doubly or trebly indirect. First the mind must act upon the nervous centres, secondly the vibrations set up in the nervous centres must give rise to undulations propagated through some physical medium, next these undulations must stimulate the nerve centres in some other brain, and lastly the stimulus applied to the nerve centres must translate itself into consciousness in the mind attached to that other brain. It is not however necessary to press this point. Even if we cover up all questions concerning the relations of mind and body under the convenient term of "living being," we must still insist that psychical action transmitted by means of physical mechanism is a very different thing from that immediate action between mind and mind which the presuppositions from which we started have brought us to anticipate. Immediate action between mind and mind may have physical action as its invariable concomitant; but this physical action would not, according to the view I have put before you, belong to the special chain of causal relation for which we always look when we are seeking to understand a phenomenon by referring it to general laws. In other words it would be in the nature of a side-effect, much as noise accompanies the discharge of a rifle but is properly not regarded as the cause of the propulsion of the bullet.

Even at the risk of being unnecessarily tedious, I do not like to leave this topic without once more guarding myself against a possible misconception. I am afraid I may have produced in some of you the impression that I am trying to give a metaphysical proof of the truth of telepathy. That is not so. What I have done is to take certain metaphysical presuppositions, which on general grounds seem to me worthy of provisional acceptance, and shew, or attempt to shew, that some direct interaction between psychical existences is involved in the implications which they contain. It is natural to suppose that one form at all events which such interaction may take, will be the communication of thoughts and feelings and impulses and inhibitions from one centre of consciousness to another. When we find that there is a considerable body of evidence drawn from experience that communication of this nature otherwise than through the recognised channels of sense actually occurs, the fact that this evidence harmonises with any preconceived idea we may have formed inevitably and legitimately tells in its favour. But no *à priori* chain of reasoning can take the place of experience in a matter of this kind. It may safely be affirmed that in the complete absence of all evidence from experience that such a phenomenon has ever occurred, we should, in spite of Professor Flournoy, either not think it necessary to invent telepathy, or if we did invent it on grounds of *à priori* probability, we should certainly not consider it worth while to carry our speculations on the subject very far. We cannot hope to rest the *proof* of telepathy on any other ground than that of solid fact. I am prepared to go yet further, and to admit that we must look to experience not only for proof of the truth of telepathic communication between mind and mind, but also for the solution of difficult questions concerning the true nature of the phenomenon such as those on which I have the misfortune not to see eye to eye with Professor Flournoy. He takes one view of the subject; I am disposed to take another; but we should, I think, both of us have to confess that our difference of opinion depends more on the presuppositions with which we start, and less upon observed facts than either of us could desire.

Are we then to conclude that there is no room left for

speculative consideration of the subject and that no useful purpose can be served by it? I think that would be to go beyond the mark, and for two reasons. In the first place our readiness to receive evidence in support of what is strange and unfamiliar will always depend in some degree upon the antecedent probability or improbability which our minds instinctively attach to it: and this again upon the ease or difficulty which the new idea has in fitting in with the rest of our mental furniture. I am quite conscious that speculations of the kind in which I have indulged to-day have had considerable weight in my own case, and it is possible there may be some others like-minded with myself.

There is also another consideration to be taken into account. It is true that the sciences draw their material from experience. But the further each science pushes the limits of enquiry, the more it tends to pass beyond into the region of metaphysics. Even the physical sciences have yielded to this tendency; it is still more marked in psychology; it is practically inevitable in that department of psychology which specially interests this Society and which has been baptised, not very happily perhaps, with the name of Metapsychics.

Let me give you two or three illustrations of this tendency from among many that might be cited. The question of the possibility of action at a distance has long been a stumbling block to physicists. Most physicists deny the possibility altogether, apparently on *à priori* grounds. At all events the denial cannot as yet claim the universal and unequivocal support of experience even as regards the material world. Now the question whether in any particular case or class of cases the action of one body on another can be shewn to be exerted by transmission through a continuous medium would certainly seem to be one for physicists to determine. But the dogma that action at a distance is inconceivable appears to me, I confess, to involve metaphysical considerations even if confined to physical action, and certainly involves metaphysical considerations if universally applied to real existences in general.

I have given you an illustration derived from Physics. If we want one drawn from psychology there is no need to go beyond a topic already touched upon in this address.

You have only to open any work on psychology which is not content with a purely superficial treatment of the subject, to see how difficult and almost impossible psychologists find it to avoid raising the question of the existence and nature of the Soul. They may make a gallant effort to eliminate it, but it pervades and colours all their speculations notwithstanding.

Let me cite yet another instance, taken from that region of enquiry which more especially concerns the Society for Psychical Research. There is probably no subject which more keenly interests a majority of our members than that of the rational grounds for a belief in immortality. But how far can the investigations of the Society throw light on the problem of immortality? Clearly only to a limited extent. It may be possible to obtain evidence from experience sufficient to convince us that a centre of conscious activity carrying on memories of our corporeal existence does in certain cases survive the dissolution of the body. But this is by no means equivalent to proof of the immortality of the Soul; of which indeed it is evident from the nature of the case we can have no experience whatever. Proof of survival after bodily death of a conscious self retaining memories of the living personality may, and in fact must, have an important bearing on the larger question, especially in the way of removing difficulties and objections. But any rational ground of belief in the immortality of the Soul must in the end be speculative and result from the general view we take of the meaning and purpose of the universe as an intelligible system.

Do not suppose that I call attention to the tendency of the sciences to pass over into metaphysics in order to condemn it. On the contrary, I believe it to be both inevitable and right. It seems to be more than probable that Metaphysics and Science are destined in the future to draw nearer and nearer together; that Science will find it more and more necessary to examine its fundamental conceptions in the light of metaphysical considerations, and that Metaphysics on the other hand must be prepared for continual revision of its constructions with reference to the ever accumulating stores of knowledge derived from experi-

ence. Each will in this way suggest problems to the other, and each contribute its help towards their solution.

I have now laid before you my justification for the procedure which I have adopted in this address. Shall I be deemed overbold if in the remainder of the time at my disposal I try to provide you with a practical example of the kind of co-operation between metaphysics and science which I have in my mind?

There are certain problems connected with telepathy, which any one approaching the subject as I have done from the metaphysical side is bound to face. He who proceeds step by step in pursuit of empirical fact is not called upon to go beyond bare affirmation of that which observation has established. But the moment he begins to theorise, especially if he attempts to shew grounds for anticipating that particular phenomena will occur, something more is necessary. He must be prepared to shew not merely that the phenomena do sometimes occur, but also that they occur in every case in which their occurrence was to be anticipated in accordance with the theory. Or if he cannot do this, at least he must be prepared with some explanation which accounts for apparent exceptions to the rule. The fact that communications of impressions, feelings, and impulses do occur between living beings otherwise than through the recognised channels of sense will probably be accepted without demur in this audience; and perhaps I may be permitted on this occasion to take it for granted. From my point of view, however, that is not enough, and I am bound to ask myself the further question: Why is the phenomenon, so far as actual experience goes, a comparatively rare and exceptional one? If it belongs to the very essence of minds that they should interact with each other, and if telepathy is the form we should naturally expect such interaction to take, why is it not more frequent? Why indeed is it not universal?

The answer I am disposed to give to this question would be that taken in the widest sense telepathy probably is universal, and that what is rare and exceptional is only our realisation of it. It is quite true that this cannot be proved. But it is to be noticed that the difficulties in the way of

proof arise from the very same causes which would interfere to prevent our recognising the universal agency of telepathy supposing it to *be* universal.

The first and most obvious case is that in which the interaction takes place but the psychical effect resulting from it either fails to reach the level of consciousness, or at most amounts to no more than an obscure modification of the total psychical content, and cannot be analysed out as one of the distinguishable and definite components of that content.

The notion of a psychical impression which does not reach the level of consciousness may seem a strange one; but we are driven to it, at all events as a limiting conception, the moment we admit degrees of distinctness and indistinctness in conscious impressions. As regards modifications of the total psychical content which are too vague and general to allow of particular analysis, it must be remembered that when telepathic communication takes place, we are not, according to my view, to conceive it as the passing over of an impression intact from one mind to another. On the contrary, what we are dealing with is an interaction between two elements, both of which enter as essential factors into the result.

Passing next to telepathic impressions which do reach the level of distinct consciousness and are sufficiently definite to be separately distinguishable, it by no means follows that we should be aware of their true origin. Let me mention in particular two classes of such cases, in which telepathic action may be really at work and yet remain entirely unrecognised either by the persons affected or by an observer.

The ordinary interchange of thought between one individual and another is effected by means of signs, which are conveyed through the senses of touch, of hearing, or of sight. It would be extravagant indeed to suppose that in the case of written signs telepathy plays any part in conveying the meaning of the writer to the reader; but are we to assert this also in cases where the communication is by word of mouth, by gesture, or by physical contact? Surely in such cases it is not a wildly improbable conjecture to suppose that the indirect communication by signs may find as it were an ally and auxiliary in the direct simultaneous interaction of mind with mind. I am far from affirming

positively that this is so : but some slight support for it may perhaps be derived from observed facts. I may instance the wonderful sway which a great orator is able to exercise over an audience, far beyond any influence which the same words uttered by less gifted speakers would exert ; the marked preference which even students of dry and difficult subjects display (though I confess I never shared it myself), for oral over written discourse ; the striking facility exhibited by very young children in grasping the meaning of words which they hear for the first time ; the apparently similar results obtained in certain hypnotic cases, when a transition is made from the uttered word of command to purely mental suggestion. In the case of animals again it may be worth while to notice in this connection the surprising intelligence which many dogs show in interpreting the slightest indication given by their masters ; the quickness of the very young offspring of certain animals to understand and obey the different notes of warning or encouragement sounded by the parent ; the apparent simplicity of the signs employed by members of insect communities compared with the complexity of their social life. No doubt it may seem fanciful to trace telepathy in all this : but even so, the point I wish to emphasize remains, namely, that in every case in which communication by means of sounds, gesture, or physical contact takes place the contributory action of telepathy is possible, and yet, even if actual, would probably escape notice and certainly elude proof, because masked and hidden from observation behind the more obvious rôle played by the ordinary machinery of communication.

A second class of cases in which telepathic action may form, or help to form, conscious impressions, and yet altogether fail of recognition, is of greater importance and interest.

Our ordinary sense perceptions carry with them a direct reference to real objects outside of us, and reflection enables us to distinguish between our subjective impressions and the objects which we know by means of these impressions, and which we regard as in some sense giving rise to them. But there are other states of consciousness which carry with them no such external reference, and which we treat as purely subjective states without cognitive significance. Can any of

these states, which we are accustomed to look upon as purely subjective, be really, in part or in whole, the expression of the direct action of other minds upon our own?

If so, the field for undetected telepathic action is evidently very wide indeed. For such subjective states form a large part of the stream of consciousness in both the waking and dreaming life of each of us. Impressions keep streaming through the mind apparently unsummoned by any conscious act of will; yet their telepathic origin, if they had one, might remain forever concealed in the absence of any sign which gave either an immediate assurance of the fact or else a basis from which it might be inferred.

The truth is that for a case of spontaneous, as opposed to experimental, telepathy to be even suspected, the first requisite is that the impression should be of a striking character, an incongruous intrusion into the stream of consciousness, and for that very reason exceptional. Or if this arresting character is absent, its place must be supplied by a precision of coincidence such as is artificially provided in experimental telepathy, and this again is exceptional.

I submit then that the comparative rarity of instances in which telepathy is suspected, let alone proved, does not justify a conclusion as to the rarity of the phenomenon itself. It may be common, nay universal (if we include under the name of telepathy cases in which though a real psychical interaction may take place, its effects are too weak to rise above the threshold of distinct consciousness), and yet it may escape detection. After all gravitation is universal in the material world, yet civilised mankind had lived and thought for many hundred years in blissful unconsciousness of the fact that any connection existed between the fall of an apple to the ground and the majestic motion of the heavenly bodies.

If telepathy be universal there is yet another aspect of it of which account must be taken. So far, both in experimental telepathy and in recorded cases of spontaneous telepathy, the interaction has generally been confined to a single agent and a single percipient. There are a certain number of cases in which a telepathic impression appears to have been received by more than one percipient simultaneously; and there may be a few in which the evidence

points to joint agency. The *rapport* already referred to between great orators and their audiences may possibly be in some degree telepathic. It is also conceivable that the mysteriously rapid diffusion of important news over large areas, of which strange tales come to us from the East and elsewhere, is to be referred to a similar origin; and the same may be true of certain of the phenomena that often accompany religious revivals. On the whole, however, it is safe to say that in the clear and unmistakeable cases of telepathic communication actually known to us, very few, and for the most part only two, individuals have been concerned.

I should like to connect with this observation a further one concerning the character and content of telepathic impressions as exhibited in our evidential cases. These impressions almost always shew a marked character of particularity. They consist of definite sensations, impulses, mental pictures or externalised hallucinations. Even when they can properly be described as ideas, they are usually ideas of a definite and concrete event or series of events; rarely abstract and general ideas. Some exceptions may be found in certain cases of automatic writing, and perhaps also in trance utterances; but these are not sufficient to invalidate the general rule.

Now these two characteristics of the evidential cases of telepathy I put together because I believe there is a real connection between them. All direct evidence of telepathic action is based on some proved correspondence between the contents of different minds which it is not possible either to regard as accidental or to account for by communication through the ordinary channels of the senses. The more minute and detailed the coincidence, the more telling it will be for evidential purposes. In this respect particular and concrete impressions would appear to have an advantage over general and abstract ideas. But is it likely that particular and concrete impressions will arise from the telepathic interaction of a multitude of minds? So far as I am aware, little, if any, light has been thrown upon this question by any experimental results to which we can appeal; but upon broad grounds of probability I should be disposed to answer it in the negative, unless for some reason or another a given

particular impression is *already* present in a considerable proportion of the minds concerned. Accordingly, if telepathic interaction belongs to the essence of all minds, it seems not unreasonable to draw two further conclusions. First, that most, if not all, evidential cases of telepathy are likely to be cases in which a special and exceptional telepathic responsiveness or *rapport* has been established—we do not yet know how, save that a particular direction of attention and will seems to have something to do with it—between a limited number of individual minds; and secondly, that if an all-embracing psychical interaction can anywhere be traced, it is in the region of universals that we must expect to find it.

We often speak of ideas being “in the air”; and the common tendency of thought in particular epochs has been so marked as even to lead to the personification—with more or less of conscious metaphor—of a *Zeitgeist* to account for it. This is of course mere mythology. Whatever of mystery the phenomenon in question may still present, after more obvious explanations have been exhausted, can be more satisfactorily explained by reciprocal telepathic action between many contemporaneous minds. But there is a region of ideas beyond these passing phases of opinion and sentiment. What of the ultimate constitutive notions which lie at the foundation of all knowledge, making a common universe for our common reason? What of the moral ideas which bind mankind together, and cause us to be members one of another? Is it too wild a flight of speculative fancy to imagine that these are in some sort sustained and ever more and more fully realised through the direct intercommunion of all spiritual beings, and that telepathy in its highest aspect is an actively unifying principle leading us upwards and onwards, the manifestation in the world of spirits of the supreme unity of the Divine Mind?

The theme is a tempting one for the metaphysician. But it is difficult breathing at such elevations. Let us be content with less high matters, and direct our course again towards earth.

Under the guidance of the presuppositions from which we agreed to start, we have been brought to the idea of

telepathy as the universal form of interaction between psychical existences, and even, it may be, the fundamental bond of unity and principle of development within the entire spiritual world. Let us now take up the clue once more, and following where it leads the way, try if we cannot discover yet another region in which telepathic agency, though its presence there has hitherto been unsuspected, may none the less be found to play an all-important part.

The region I refer to is that of the human personality itself. In the monumental work which he bequeathed to this Society and to the world Frederic Myers tells us that he regards each man as at once "profoundly unitary and almost infinitely composite, as inheriting from earthly ancestors a multiplex and 'colonial' organism—polyzoic and perhaps polypsychic in an extreme degree; but also as ruling and unifying that organism by a soul or spirit absolutely beyond our present analysis." With due reserve as to ulterior implications, I for one accept this description so far as it represents the real self of each of us as one and indivisible, but nevertheless associated in our organism with other centres of conscious activity.

Evidence has been constantly accumulating within recent years of the *contemporaneous* presence of more than one stream of consciousness in the same human being. No mere *alternations* of personality, however striking, nor any change however great that takes place in the self when it passes from the waking to the hypnotic state, would suffice to prove the simultaneous existence of more than one consciousness in the organism. For these different states could still be conceived as being what in most cases they probably are, namely, successive states of the same consciousness.

This explanation cannot however be used to account for so-called automatic actions requiring the exercise of a reasoning faculty for their performance, yet working themselves out without the knowledge of the waking self while the latter is otherwise engaged: still less can it account for certain extreme cases of disintegrated personality in which two distinct and fully developed selves appear on the stage at the same time. Take for instance the extraordinary case of Miss Beauchamp, under observation for many years by

Dr. Prince of Boston, in which two of the personalities engage in an open conflict of wills, one of them deliberately and repeatedly produces hallucination in the other, and is able to play the part of a sane spectator looking on at the other's delirious dreamings.

It is true that most of these cases could be explained by supposing a duality, not a multiplicity of conscious activities in the single organism : but the principle once admitted, there are many phenomena in abnormal and even in normal psychology which are most easily accounted for assuming an almost indefinite possibility of dissociation among the elements that go to form the normal personality—different groups of ideas and memories “splitting off” as it were from the main current of consciousness and setting up a certain independent existence of their own.

How then, on this hypothesis, are we to conceive the relations of the central individuality to the body as a whole and to the various subordinate activities of consciousness associated with it, in such a way as to do justice at once to the unitary character of the soul and the complexity of the factors which constitute the personality as we know it?

This is the problem which Myers attacks in earlier chapters of his great work. Of the masterly manner in which from many points of view he has performed the task I need not speak.

No unprejudiced person can fail to recognize the marvellous combination of qualities which the writer has brought to his work—the boldness, the industry, the eloquence, the rare felicity of style and fecundity of literary illustration, the power of co-ordination in dealing with masses of detail, the imaginative insight, the burning enthusiasm, the unconquerable faith in the ultimate triumph of the spiritual element. On the other hand I must in all humility confess that I have never yet succeeded in forming a clear idea of what Myers means by the subliminal self, or in what relation he conceives it to stand with the supraliminal self on the one side, and on the other with the indwelling soul, or truly spiritual part of us, which he identifies with the unknown real self and believes to survive the dissolution of its earthly tabernacle.

According to Myers' view there exist in all of us “sub-

merged thoughts and emotions which possess the characteristics which we associate with conscious life"; and as, in addition to these isolated subliminal processes, "there is also a continuous subliminal chain of memory (or more chains than one) involving just that kind of individual and persistent revival of old impressions, and response to new ones, which we commonly call a Self"—I am quoting his own words—he finds it "permissible and convenient to speak of subliminal selves, or more briefly of a Subliminal Self." It is true that he goes on to warn us that he does not by using this term assume that there are two correlative and parallel selves existing always within each of us "but rather means by the subliminal self that part of the self which is commonly subliminal." But this qualification seems to mean no more than that the subliminal stream of intelligence, although concurrent, is not habitually organised up to the point of ranking as a second fully developed *self* side by side with the supra-liminal current of consciousness which common sense regards as our real self. As it seems to be admitted that it can and does become so organised in exceptional cases, the distinction appears to be only one of degree. Anyway the various "quasi-independent trains of thought" are conceived as "co-operating" together; messages can pass from the submerged to the emergent self, and "suggestions" can be impressed by the supra-liminal self on the subliminal.

Now it is just at this point that the question I wish to press comes in. It requires *two* to co-operate, as it requires two to quarrel. In what sense are we to understand the co-operation between distinct streams of consciousness, and what is the meaning of these "messages" and "suggestions" that pass between the subliminal and supra-liminal selves?

From the standpoint taken up in this address this question admits I think of an intelligible answer. It is hardly consistent with our presuppositions to assume that there can be thought without a thinker. Psychology as a science may find it convenient to speak of ideas and mnemonic chains and states of consciousness as if these could subsist in the void. For us however this conception must remain an illegitimate abstraction, and we must hold that ideas and states of consciousness are in reality only forms of the

activity of a psychical entity or mind, even though that mind fall far short of the degree of development implied in a self-conscious personality.

If then every distinct stream of consciousness implies a distinct centre of psychical activity or mind, a plurality of distinct streams of consciousness in man implies a plurality of minds associated in the human organism. If interaction between these minds takes place *indirectly* it must be through the medium of the physical elements of the organism. If it takes place *directly* there would appear to be the strongest presumption in favour of regarding it as telepathic, telepathy being the only form of direct action between mind and mind which has any support from experience. It is quite possible however that it may take place in both ways; and if a conjecture for which we left room some little time ago has any foundation in the real order of things—namely that no finite mind is entirely without physical activity, nor any material element wholly destitute of psychical attributes—then it is conceivable that the two ways may shade off into each other.

Would Myers have accepted this answer? Singular as it may appear, I am not aware that in any part of his book he has discussed the nature of the interaction between the supraliminal and subliminal selves. Nevertheless the idea that this interaction may in part at least be telepathic in its character seemed to me so natural that I could not help feeling some surprise that it should not have occurred to an intellect so fertile and ingenious. And in fact, after considerable searching I have come across one passage in which a hint of such a possibility is given. The passage occurs in the first chapter of the second volume, and consists practically of a couple of sentences.

“Wherever there is hallucination,” writes Myers, “whether delusive or veridical, I hold that a message of some sort is forcing its way upwards from one stratum of personality to another,—a message which may be merely dreamlike and incoherent, or which may symbolize a fact otherwise unreachable by the percipient personality. And the mechanism seems much the same whether the message’s path be continued within one individual, or pass between two;

whether A's own submerged self be signalling to his emergent self, or B be telepathically stimulating the hidden fountains of perception in A." Here is a distinct hint of telepathic action between the two selves within one individual. But the hint is not further followed up, and what is stranger still, it seems to be confined to the case of hallucinations produced in the supraliminal self by the action of the subliminal, and not to extend, or be meant to extend, to "suggestion" proceeding from the upper to the lower stratum.

It is perhaps worth noting that Myers often seems inclined to regard telepathy as the peculiar prerogative of the subliminal self. This is of course quite inconsistent with the idea of telepathic action within the organism. It has always appeared to me a curious paradox which the evidence before us fails to support, and I believe nothing will be lost by its definite and explicit rejection.

On the view which I have tentatively outlined, it is possible, I think, to frame a more definite conception of the different factors that unite to form the individual human being, and of the relations between them, than I, at all events, have been able to derive from Myers' account of the supraliminal and subliminal selves.

Every psychical centre associated with the organism would, in accordance with this view, have to be regarded as "subliminal" to every other, though indeed it might be better to drop that term altogether in describing the relation as I conceive it. The Self of which we are each of us conscious is neither the organism as a whole nor any grouping of psychical centres within the organism. It is a single mind or soul whose conscious states at any given moment are the expression of its reaction against its entire environment. What is its environment? In the larger sense (and this must not be forgotten in considering the question of survival after the dissolution of the organism), its environment is nothing less than the whole universe other than itself. In the narrower sense its environment is the physical organism and every psychical centre associated therewith. The presupposition of a plurality of real existences, coupled with the observed facts as to the concurrent activity of distinct streams of consciousness within a single organism

has thus inevitably brought us in sight of the idea first put forward by Leibnitz, that the living creature is a kind of hierarchy of monads arranged in orderly and systematic relations with each other, each reflecting in its own way the states of consciousness of all the rest. Only whereas Leibnitz denied all real interaction between the monads and sought to account for the apparent interaction by his famous doctrine of Pre-established Harmony, we have assumed throughout that the interaction is real, and conjectured that in part at least it might be of essentially the same character as that which, as between distinct living organisms, we call telepathic.

What, then, on the psychical side, would be the purpose served by the organism? It seems not unreasonable to regard it as an important, perhaps even a necessary, factor in the establishment, within a particular group of psychical centres, of a special telepathic *rapport*. In a normal state of the organism the *rapport* would be such as to result in the harmonious co-operation of all the centres under the guidance and control of the one dominant centre which constitutes the real self of each of us. The healthy human being would thus resemble a well-ordered community in which each subordinate member, in silent understanding with his fellow subjects and with the head of the state, duly carries out the appropriate task imposed on him either by the behests of the latter or by the laws on which the well-being of the community itself depends.

Abnormal conditions would imply a disturbance of the telepathic *rapport*, which in extreme cases may apparently go so far as to alter the whole character and interrupt the continuity of memory of the dominant self, or even depose it from its headship of the community and place a rival self in possession.

Complete and final cessation of the special telepathic *rapport* within the organism I take to be the true significance of death.

What is there in all this, you may be inclined to say, but one more unverifiable hypothesis? Well, perhaps. But in the territory which the Society for Psychical Research has set itself to explore, I am afraid we shall often have to content

ourselves with hypotheses that can have no other verification than this; that they offer the framework into which, for the moment at least, the accumulated facts of experience, together with those certitudes of which we seem to have immediate assurance, can be fitted most easily, and with the least violence and stretching, into the semblance of a coherent whole. Verification, like so much else, is in the end seen to be a question of degree: and in this respect no hard and fast line can be drawn between the hypotheses of metaphysics and those of science. Moreover as regards the particular hypothesis now in question, probably the least verifiable part of it is that which is already contained, by implication, in the original metaphysical presuppositions from which we agreed to start concerning the plurality of real existences. If you refuse me absolution for these, it would be vain to hope that you will pardon the temerity of any other speculation in which I may have indulged to-day.

For those indeed who are prepared to concede these presuppositions, and who are also believers in telepathy and in the poly-psychic nature of the human organism, the further step of admitting telepathic interaction between the psychical elements of the organism ought not to seem a long one. It may be difficult and perhaps impossible to *prove* telepathic agency in this case as in many others; but it is equally difficult or impossible to disprove it. If, nevertheless, Myers appears to have turned aside from the idea, it is permissible to conjecture that the cause lay deep down in metaphysical preconceptions of his own. For in spite of his admission of distinct selves or centres of consciousness within the organism, there always seems to float before him the conception of a Soul which should be the real unity of all the rest in a higher sense than that of merely including them ideally while really excluding them after the fashion of the Leibnitzian monad.

I will not attempt to criticise this conception—which perhaps after all I have wrongly ascribed to him—further than to say that I find it hard to reconcile with the attribution of real existence to the subordinate psychical centres; and that if it is legitimate to apply it to relations between the psychical centres within the organism, it is not easy to see

why it should not be equally applicable to psychical existences generally. I cannot help suspecting that the logical tendency of this line of thought if followed out to the end would prove to be in the direction of pantheism rather than of that personal immortality for which Myers himself so strongly craved.

This however is a subject which I must not pursue further. Indeed I have already trespassed too long upon your patience, and must now bring this address to a close. In the course of it I have ventured to suggest three propositions for your consideration. First, that direct telepathic action between mind and mind is a phenomenon which we might reasonably have anticipated on grounds independent of experience. Secondly, that the comparative rarity of observed cases is no proof that the action is not universal and continuous, as the same grounds would lead us to expect. Thirdly, that the human organism is poly-psychic, and that telepathy probably plays an important part in the relations between the controlling self or soul, and the other psychical centres associated with it.

I put forward these suggestions in no dogmatic spirit, but tentatively; yet with some hope that they may not be deemed wholly without interest or value. In the dark and mysterious region with which the researches of our Society are concerned, we must expect to grope our way in many directions before the right one is found. In such circumstances it is possible to be too chary in framing hypotheses as well as too rash, always provided we are resolved that they shall be our servants and not our masters. Even a faulty hypothesis is not necessarily worthless; for experience shows that it is ever out of the fragments of discarded hypotheses that the roadway to truth is ultimately built.

XXII.

BY MRS. HENRY SIDGWICK.

May 19th, 1908.

PSYCHICAL Research has, both since the Society was founded and for several years before that, occupied so large a place in my life and thoughts—the investigations the Society was founded to promote have seemed to me so important, and likely to be so far reaching in their effects, that the honour of being invited to fill the President's chair has naturally been very gratifying to me. At the same time when I look at the list of my predecessors, and note how many of them have been eminent in Philosophy, Psychology or Physical Science, I feel it is difficult to succeed them with credit; and I have decided that my best chance of interesting you will be not to attempt in this address to make any original contribution to the philosophy or science of the subjects with which our Society is concerned, but rather to review our position—taking stock as it were of the progress made during the 26 years of the Society's life, and considering what are the most hopeful lines of advance at present. Such a general survey has naturally at various times formed a subject of presidential addresses, but not I think very recently.

I will refer first to worldly prosperity. Of the improvement of our position in this respect we have three indications. The first is increased membership, which is very important from the pecuniary point of view, but yet more as implying increased effective interest in our work. We may congratulate ourselves too on the number of persons eminent in other branches of scientific research whom we continue to add to our ranks.

A second indication of the greater estimation in which we are held may, I think, be found in the tone of presidential addresses. I notice that in the early years of the Society these were largely occupied with apologies for its existence, and defence of its aims and methods against attacks from unscientifically incredulous scientists on the one hand and unscientifically credulous spiritualists on the other. Since about 1889 this attitude has changed—not that attacks from both these points of view do not continue, but they affect us less. We stand more firmly on our own feet and our aims and methods are better understood and consequently more widely sympathised with.

A third indication of material prosperity is the growth of our endowment fund—a very necessary part of our equipment, and likely to become more and more necessary as the work grows. Bequests from late members and gifts from present members have already raised the fund to an important sum, though not yet sufficient for present and prospective needs. And I may remark that some contributions to this fund—such as the one lately announced in the *Journal* from Lord Rayleigh, President of the Royal Society and from the beginning one of our Vice-Presidents—are valuable not only as adding to the fund but for the moral support they bring.

This is an appropriate place to announce that lately we have learnt that the Society will receive an important addition to its funds—amounting probably to some £3000 or £4000, through the bequest of Mr. H. A. Kay, a member who died a few months ago.

Worldly prosperity, though it furthers our work and is even indispensable to its full development, is no measure of the work itself, and we must now turn to review the progress made in this work, and to consider the prospects before us and the difficulties that beset our path. And lest in what follows I should seem to dwell more on difficulties than on success, and should appear to some unduly cautious, let me say at the outset that no one can feel more strongly than I do the value and importance of the work we are engaged on or be more confident that it is worth all the time and energy we can spend on it. Nor can any one more sincerely congratulate our Society on the work it has already done and

is doing, or look forward more hopefully to the progress that lies before us.

In the paper describing the objects of the Society which is sent to enquirers, the principal departments of work are described under five heads, which may be briefly stated as follows:—(1) Telepathy; (2) Hypnotism and Clairvoyance; (3) Spontaneous veridical apparitions; (4) The physical phenomena of spiritualism; (5) The historical investigation of the same subjects. This catalogue is, of course, not exhaustive. It is difficult, for instance, to say under which head we should place Professor Barrett's full and interesting investigation, experimental and historical, into dowsing—the finding of water and other things by the so-called divining rod—published in Volumes XIII. and XV. of our *Proceedings*. Possibly, as he suggests provisionally,¹ the proper place may be under the head of Clairvoyance—so far, of course, as the success of the dowser cannot be attributed to external indications. If it is due to clairvoyance it affords almost the only evidence we have of pure clairvoyance or telaesthesia—the perception by means other than the senses of physical facts unknown to any living human being and therefore not explicable by any extension of the faculty of telepathy between living minds. This distinction between clairvoyance which may possibly be telepathic and that which cannot is I think of great theoretic importance. There were in old days alleged cases of pure clairvoyance—*e.g.* of the reading of mottoes enclosed in nuts; but we have in this Society come across exceedingly little clear evidence of it,² unless it is exemplified in dowsing. The best recent case I know which seems *prima facie* to suggest clairvoyance is one contributed by Professor William James to the *Proceedings* of the American Society (Part II.) and briefly noticed in our *Journal* last October. In this case the position of a dead body for which search had been vainly made was correctly described, and afterwards identified, by a spontaneously entranced person, though neither she nor (so far as can be discovered) any other living person can have known about it normally.

¹ *Proceedings*, Vol. XV. p. 314.

² I have not forgotten Professor Richet's experiments in "lucidity" published in *Proceedings*, Vol. V. pp. 77-116 (1888), but they can hardly, I think, be regarded as altogether beyond explanation by chance.

The paucity of evidence for pure clairvoyance gives special interest to the question whether successful dowsing ever involves it, or whether on the contrary it is to be explained by some obscure and hitherto undiscovered physical faculty. In whatever way this question is answered, however, there is no doubt that dowsing is a form of motor automatism. In whatever way the presence of, say, underground water reveals itself to the unconscious strata of the mind, the knowledge is expressed through the involuntary muscular movement which twists the forked twig used as a divining rod. The great extent to which automatism, as an external expression of subliminal mentation, pervades all the departments of our work is one of the things that we have learnt in the last 26 years. This fact and its importance will be present to the minds of all who have read Mr. Myers's great work on *Human Personality*.

Hypnotism, chiefly because it enables the experimenter to communicate with the subconscious strata of the mind in a definite way, is one of the most effective means we have of experimentally investigating automatism and the relation of the subconscious to the conscious mind. This alone makes its study of the utmost importance to us, quite apart from any supernormal faculties that hypnotised persons occasionally exhibit. The progress that hypnotism has made since 1882 is amusingly marked by the fact that when the Society was founded enquiry into the reality of hypnotic anaesthesia—a thing which no well instructed person now doubts—was set down among objects of investigation. We cannot of course claim that it is our Society which has brought about the now general recognition of the existence of hypnotism, nor more than a part of the great advance made in our knowledge of it. We have no doubt contributed to this advance, but the credit is chiefly due to members of the medical profession who have used hypnotism in their practice. Their investigations are closely related to ours for the reason that suggestive therapeutics and psychical research both have much to do with the sub-conscious mind; and we are fortunate in having many of the leading exponents of hypnotism both in England and abroad actively interested in the work of the Society.

It is, I think, inevitable that the study of hypnotism should be mainly in the hands of medical men, and it is probably also desirable; but it would be disastrous if this were to confine investigation to the therapeutic aspect of the subject. The purely psychological knowledge that may be gained through hypnotism is obviously of the greatest scientific importance; and especially is it so to psychical researchers, through the light thrown on subconscious mentation, on dissociation of personality, and on hidden powers of the human mind. In the psychology of the subject our Society can boast of valuable work, as evidence of which I may refer to Mr. Gurney's important papers in early volumes of the *Proceedings*, and to Dr. Milne Bramwell's, and (quite recently) Dr. Mitchell's experiments on the Appreciation of Time by Somnambules.¹ Nor have we been without confirmation of the manifestation of supernormal faculties in the hypnotic state, as, for instance, in the case of Dr. Alfred Backman's subjects in Sweden or Dr. Wiltse's in the United States of America.²

In connection with hypnotism I may remark that it is to the study of this subject, and the light it has thrown on the power of suggestion, that we largely owe our present knowledge of the quite special difficulties that attend experiments in psychical subjects. In experimental work progress is made by taking some provisional hypothesis and testing it—or, to put it otherwise, by asking nature questions to which phenomena obtained under suitably arranged conditions give the answers. That, indeed, is what we mean by experiment. The special difficulties inherent in psychical experiments arise from the fact that dealing as we do with the human mind under circumstances where suggestion is powerful, both the question itself which we address to nature and the expectations as to the answer become to an unknown extent part of the conditions to be dealt with and are liable to be disturbing factors very difficult to eliminate. For instance, it is, I think, now generally admitted that the theories as to hypnotic processes put forward by Dr. Charcot and the Salpêtrière school were largely vitiated by insufficient attention to the effect of preconceived ideas as to what was expected to happen, with which the observers themselves inspired the

¹ *Proceedings*, Vol. XII. p. 179; Vol. XXI. p. 2.

² *Proceedings*, Vol. VII. pp. 72, 199, 370.

patients. Suggestion in its widest sense too is as likely to operate in inhibiting phenomena as in affecting their form, and it seems not unlikely that the difference in the kind of psychical phenomena observed with hypnotic patients by *e.g.* Dr. Elliotson in the fifties and Dr. Bramwell now, may be partly due to the mental attitude of the experimenters acting on the patients. Especially may this be so if telepathy be a *vera causa*, since in that case the utmost effort to conceal thoughts and feelings might fail to prevent unintended *mental* suggestion. To the difficulties arising from suggestibility we have to add those due to the operation of subliminal inferences and memories which are often hard to detect. The extreme care and caution in drawing conclusions which all this necessitates may well make progress slow; but every branch of scientific investigation has its special difficulties, and ours should not discourage us, but on the contrary stimulate us to greater effort.

Following the order of the list of departments of the Society's work already referred to we come after hypnotism to the collection and investigation of spontaneous veridical apparitions and analogous phenomena. It would, I think, be generally admitted, even by those not yet convinced of telepathy, that the work done under the auspices of the Society has thrown a new light on the subject of apparitions. And most of us here present have probably been convinced of the telepathic origin of many of them by the evidence ably set forth by Mr. Gurney, Mr. Myers, and Mr. Podmore in the book *Phantasms of the Living* in 1886. This evidence has been supported by further cases constantly received since then, and has been supplemented in an important way by the so-called "Census of Hallucinations"—the statistical investigation and classification of the spontaneous hallucinations of persons in ordinary health—published in Volume X. of the *Proceedings*. But there remains much to be done both in collecting more well-evidenced cases and in getting the importance of recording experiences immediately to be more generally understood. More cases are wanted not only in order to convince the scientific world, but in order that a comparative study of the experiences may throw light on their nature and origin. Each carefully observed case may have features of its own confirming or contradicting some previous hypothesis or suggesting new considerations. For instance, the interesting

case read by Professor Barrett at the last meeting (see *Journal*, Vol. XIII. p. 228) differs in some important respects from any that—so far as I remember—we have received before. What is to be desired is that the Society should be widely understood to be the repository to which accounts of well-evidenced veridical hallucinations should be sent as soon after their occurrence as possible, and I think members of the Society might help more than they do to bring this state of things about. One of the advantages of a society is that it may bring us into touch with a wider circle, and therefore with more persons having experiences than would be possible for any one working alone.

But it may be asked—how many cases ought we to expect to receive, and is it reasonable to expect more than are now sent to us? It is not of course possible to answer this question exactly, but some light is thrown on it by the “Census of Hallucinations.” It appears (*Proceedings*, Vol. X. p. 242) that among the 17,000 persons who answered the census question apparitions representing a dead or dying person within 12 hours of the death were reported to have occurred to percipients over the age of 10 on eleven different occasions during the previous ten years. From this we may infer that from a circle of 17,000 persons such occurrences are likely to be heard of at the rate of about one a year. The census enquiry closed in May 1892—sixteen years ago. I have looked through the *Journal* to see how many cases of the above type, sufficiently well evidenced to print, have been reported to us during these 16 years. I find that there are eight, including one in which it is not certain that the person whose apparition was seen had not been dead for more than 12 hours.¹ Eight in 16 years is about half the census proportion, and what makes it worse is that only two of these cases belong to the last ten years—the period from 1898 to 1908.

Of course other interesting spontaneous veridical cases have been printed in the *Journal* since 1892. I do not mean that there are only seven interesting experiences in all. I select a particular well-defined class because this facilitates numerical comparison; and if we have received fewer than we might reasonably expect of this class—a specially interesting one—it is probable that other classes are inadequately represented also.

¹The eight cases will be found as follows:—*Journal*, Vol. VI. p. 280; p. 368; Vol. VII. p. 121; Vol. VIII. p. 41; Vol. IX. p. 306; Vol. XII. p. 59; Vol. XIII. p. 103; p. 234.

I must, however, in fairness admit at this point that of the eleven "census" cases just mentioned only seven, or about two-thirds, were judged sufficiently well evidenced to print—and that probably to make the statistical comparison accurate some additions for insufficiently evidenced cases ought to be made to the eight printed in the *Journal* since 1892. At the same time we must remember that there ought now to be a more widely spread understanding of the importance of making the evidence good than there was in the comparatively dark ages before *Phantasms of the Living* was published, and that consequently fewer cases should be lost through carelessness. However, we cannot expect perfection, and probably some cases have been so lost.

I do not wish to lay too much stress on the numbers I have given. With so rare a phenomenon and such short periods we cannot of course expect a constant proportion. I think, however, that we may infer that at least as regards apparitions at the time of death we do not draw from so large a circle as the 17,000 who answered the census question. You will perhaps say that it is unreasonable on my part to expect that we should, because when answers to the census question were collected a special effort was made, and we are not likely to be generally in touch with anything like so large a circle. I cannot agree with this—at least I certainly think we might spread our net more widely than we do. There are now 1138 members and associates of the Society, and if they were all sufficiently interested to exert themselves as much as some of them do they could surely effectively reach a number of persons approaching the 17,000 who were asked the census question by 410 collectors.

I may take this opportunity of allaying a suspicion which I think exists in the minds of some members—the suspicion, namely, that well-evidenced cases are sent to the Society, which, through the perversity of the Editor of the *Journal*, or false economy on the part of the Council, are not printed. This is far from being the case. Well-evidenced cases are always printed, except in the very rare instances in which our informants ask us not to print. It is true, however, that we have somewhat raised our standard, especially in the matter of the interval between experience and record; and I think it is true also that

—the kind of evidence required being better understood than it used to be—fewer badly-evidenced cases are sent to us now than formerly. Cases which cannot be brought up to a useful evidential standard ought not, of course, to be printed by the Society; though some of them are worth storing in view of possible evidential improvement, or because they belong to a class—such as some haunted house cases, or some doubtfully veridical experiences of living percipients—which may become important through possible future experiences or developments. There would doubtless be differences of opinion as to what standard a case should reach to make it worth printing, but I do not think that any competent judge would be likely either to regard the evidential standard adopted in the *Journal* as too high, or to think any unprinted cases clearly above it.

Before I leave this subject let me again express the hope that members will increase their efforts to get on the track of interesting cases, and to bring them up to as complete an evidential standard as possible.

There is one department of the Society's activities in which hardly any real progress has been made—I mean the investigation of the physical phenomena of spiritualism, or I may say for shortness, telekinesis. So far as I can judge, this subject stands almost exactly where it did 26 years ago, when the Society was founded. The first President of the Society said in his first presidential address that it was "a scandal that the dispute as to the reality of these phenomena should be still going on," and that it was a primary aim of the Society "to make a sustained and systematic attempt to remove the scandal in one way or the other." Nevertheless, the scandal remains. On the one hand the phenomena are still swamped in fraud, and so far as they are reported to us still occur for the most part in the presence of professional mediums who are sooner or later detected in trickery: and, on the other hand, evidence continues to be offered from time to time which cannot be disregarded owing either to our confidence in the skill and judgment of the persons offering it and their experience in this kind of investigation, or in a few cases to the moral trustworthiness of all concerned.

There are, of course, some results from the various investigations that have been carried on. On the negative side, besides an

extended experience of trickery and credulity, we have acquired—largely through the work of Mr. S. J. Davey and Dr. Hodgson—a much more definite experimental knowledge of the possibilities of mal-observation than we possessed when the Society was founded. Also our greatly extended knowledge of motor automatism has shown us that the possibility of sub-conscious muscular action—even very complicated action—has to be reckoned with more than we knew in 1882. On the positive side we have, as I have said, the conviction of a few persons whose judgment cannot be ignored, that they have seen genuine phenomena even with professional mediums; and a few cases like that of Mr. Stainton Moses (though his case, by the way, occurred before the Society started), where there is great improbability of conscious deception, and where unconscious automatic action has at least not been discovered. I cannot, however, myself feel confident that in these cases the possibilities of error have been sufficiently excluded, or that a conclusion either way is at present justified. There is still—to use a phrase with which we were all very familiar in the early days of the Society—a *prima facie* case for investigation.

How then can the investigation be furthered? In the first place I should like to urge strongly that fraud should be more seriously discouraged than it is at present. I cannot help thinking that if telekinesis is a genuine phenomenon we could not but have known more about it by now than we do, had it not been for the extent to which it is mixed up with fraud. And the reason there is so much fraud is that it pays so well. As a rule the fraudulent medium runs no serious risk even of loss of credit through discovery. Between the credulous and the curious the medium who has been exposed is as much in demand after exposure as before. If every medium discovered in systematic trickery could be at once dropped and ignored, the disgusting trade of fraudulent mediumship would soon cease to be profitable, and the ground of investigation—assuming that there are genuine phenomena to investigate—would be considerably cleared. Of course this is a question of policy, and there are leading members of the Society, as well as many outside it, who do not agree with me. For myself, however, I feel strongly that as things are no evidence for

telekinesis obtained with professional mediums is likely to produce any permanent impression on the scientific world.

One of the evils arising from the trickery pervading physical mediumship, and the bad name consequently attaching to it, is that private persons who suspect in themselves telekinetic powers are apt to be deterred from pursuing the subject. It was one of the hopes of the founders of the Society that private mediums would be encouraged to come forward and give their assistance in investigation. In other branches of our enquiry this has happened, and progress has been largely due to the intelligent and energetic interest in the phenomena and their origin and cause taken by persons who have found themselves possessed of telepathic or other psychical faculties. But in telekinesis practically no disinterested person has come forward in this country apparently possessing the power and at the same time taking a scientific interest in its investigation sufficient to carry them through the tedium of careful experiment. Given an investigator with telekinetic power the simplest manifestations of it—such as movements of small objects without contact—would lend themselves best to satisfactory investigation in the first instance. Possibly it might be best to approach them through automatic movements with contact, which are by no means uncommon, and to try to develop these into movements without contact, but there are of course dangers of self-deception in this course. In any case what is wanted is numerous experiments without contact under carefully planned conditions calculated first to exclude all known physical explanations and all possibility of hallucination, and secondly to throw light on the mechanical nature of the phenomenon, where the reaction is, and so forth. I am, of course, saying nothing new in saying this; but it is worth repeating, for evidence of this kind and a good deal of it is the minimum which is likely to produce any permanent effect.

Another line of investigation I should like to see pursued in this connection is on the negative side—it is investigation into the question of the occurrence of sensory hallucinations under conditions similar to those of séances for physical phenomena. The importance in scientific investigations of eliminating the possibility of subjective illusion and hallucination may be illustrated from other branches of research than ours. The history

of the N-rays is instructive in this way. The supposed discovery of these rays was referred to by Professor Richet, in his address as President of this Society in February, 1905, as an example of the difficulty in certain cases of arriving either at a positive or a negative conclusion even about facts alleged to be demonstrable by experimental evidence which could be repeated at will. Their history has lessons for us in relation to our own investigations in more ways than one, and I will venture briefly to recall some of the circumstances to your minds.

It was in 1903 that Professor Blondlot, a French physicist of repute, observed, while investigating Röntgen rays, some effects which he attributed to a hitherto unobserved kind of radiation having a vibratory character like light and heat, and to which he gave the name of N-rays. He even thought a little later that he could, by suitable arrangements, measure their wave length approximately.¹ They emanated, according to his observation, from a variety of sources, among others from certain metals and other substances in a state of strain; and presently a physiological colleague, Professor Charpentier, reported that they also emanated from the muscles (when contracted) and the active nerve centres of living bodies. Many remarkable properties of these rays were reported one after another almost every week in the early part of 1904, and hopes were raised that the discovery would prove a source of further knowledge not only of the constitution of matter, but even of the nature of vital processes.

The N-rays were not visible, and the way in which their presence was made apparent to the senses was through the increase in the brightness of a feeble source of light, such as a very tiny gas jet or electric spark or a surface painted with luminous paint, when N-rays fell on it; or again, by the increased power of the eye to see faintly illuminated objects when N-rays fell on the retina. Naturally physicists all over the world tried to repeat the experiments, but though a few said the effects to be observed were marked and unmistakable, the majority of those who tried could not see the differences described at all. It is true that photographs exhibiting differences in the luminosity of a small electric

¹ *Comptes Rendus*, Vol. CXXXVIII. (1st half of 1904) p. 125.

spark when believed to be exposed to N-rays were offered by Professor Blondlot as proof of the objectivity of the phenomenon; but others failed to get similar photographs under satisfactory conditions, and in any case such photographs would not have gone very far towards proving the existence of rays with the peculiar properties claimed for N-rays. The continued non-success of so many skilled experimenters in repeating the experiments could not but suggest that in the successful experiments enough care had not been taken to exclude personal and subjective elements—to make sure that the observations were in no way influenced by the observers' expectations.¹

Some of those who had unsuccessfully endeavoured to repeat the experiments took opportunities of visiting laboratories in which the observations had been made, and when shown the processes were confirmed in negative conclusions. One of them—an American physicist, Professor R. W. Wood—published an account of his experiences.² The following are some of them. First he failed to see the supposed brightening of a stream of small electric sparks when the N-rays were concentrated on it by an aluminium lens. His host thought this must be due to want of sensitiveness in his eyes as the difference was most distinct when the N-rays were intercepted by a hand interposed between their source and the spark. Professor Wood suggested that an attempt should be made, by observing the illumination, to announce the exact moment when his hand was introduced into the path of the rays, the observer not having other means of knowing whether the hand was there or not. The attempt

¹ Professor Salvioni of Messina published in July, 1904, some experiments on himself, which led him gravely to suspect that in his own previous repetition of Professor Blondlot's observations auto-suggestion and optical illusion played an important part. (*Atti della reale Accademia dei Lincei*, July 19, 1904, xiii. No. 12, p. 703.) He was unable to carry out his experiments as completely as he would have desired, because he found himself no longer able to see as clearly as before the variations in apparent luminosity which were the subject of experiment. This—if it was, as seems probable, a result of his critical attitude—is perhaps instructive for us in our investigations.

Professor Pierre Weiss of Zurich, who had also believed himself to have verified some of the recorded observations, wrote to the *Revue Scientifique* for Dec. 3, 1904, an account of experiments which led him to the conclusion that psychophysiological causes had operated in his case.

² *Nature*, Sept. 29, 1904, p. 530.

failed completely; alternating brightness and dimness were announced while the hand was held motionless in the path of the supposed rays, and when the hand was moved the fluctuations observed had no relation to the movements.

He was afterwards shown the deviation of the rays by an aluminium prism which was alleged not only to bend the rays thrown on it through a slit, but to spread them out into a spectrum. The positions of the deflected rays were detected by a thin strip of luminous paint moved across them which became more brilliant at certain points. Professor Wood was again unable to see any change whatever in the brilliancy of the phosphorescent line as it moved across, and he presently found that the secret removal of the prism (the room was dark) did not seem to interfere in any way with the observations of his host.

A third experiment consisted in showing that circles painted in luminous paint showed more distinctly in a dark room when a steel file—steel being a source of N-rays—was brought near them. Again Professor Wood could not himself see any effect though it was said to be very marked, and presently he found that when he held the file so that his body—which should have been an effective screen—was between it and the phosphorescent circles, while he moved his arms towards and away from them, his host still observed the same changes.

A fourth experiment consisted in holding the file so that the N-rays from it fell on the eye, whereupon in a nearly dark room a white clock face became more distinctly visible than before. Again Professor Wood saw no difference, but he found that his host's observation of it was in no way interfered with by the secret substitution for the file of a piece of wood of similar size and shape.

It is not surprising that Professor Wood, like others, left the laboratory with a firm conviction that the few experimenters who had obtained positive results in the observations of N-rays had been in some way deluded. And while leaving the question whether N-rays have any objective existence or not to the physicists,¹ we may safely agree that there certainly was delusion on the occasion of Professor

¹ An excellent discussion of the question will be found in the *Revue Scientifique*, second volume for 1904.

Wood's visit and profitably examine what the nature of the delusion was.

Slight variations in sensation, especially on the margin of what we can perceive, may and do occur from physiological causes. Professor Blondlot and others concerned were of course well aware of this, and the point of their observations was not that variations in apparent brightness occurred, but that these variations which they described as marked coincided with an external physical event so constantly as to render the conclusion inevitable that there was a causal connection. What Professor Wood showed was that the variations coincided with the idea of the event as readily as with the event itself. The difference of sensation was therefore not purely physiologically caused, nor, on the other hand, was it due to the external physical cause. It was, in fact, a hallucination produced by expectation, though no doubt a hallucination of a simple kind.

I have called your attention to this partly because, as I have said, I think it possible that visual (and other) hallucinations due to suggestion or self-suggestion occur at séances for physical phenomena more than we realise. We start with the knowledge that many persons can induce hallucinations by gazing into crystals; that such hallucinations are sometimes collective, as for instance at a séance of which an interesting account is given in the *Journal*, Vol. XII. p. 17, when similar figures were seen by the four sitters in a large mirror opposite to which they sat; that at other séances of which we have records certain phenomena were clearly of a hallucinatory character whatever their cause;¹ that hallucinations of a definite kind can be induced by suggestion in good hypnotic subjects even in the waking state; and now, from the N-ray experiments, that expectation can produce hallucinations, at least of an elementary sort, in a darkened room in the case of persons in a perfectly normal state. Further investigation and, if possible, experiment is certainly called for in this direction. The bearing of the question on the evidence for telekinesis is obvious.

There is another lesson to be drawn from the story of the N-rays. It is not only in the subjects our Society exists to

¹For some useful information about this matter as well as about the history of telekinesis generally, I should like to refer my hearers to Mr. Podmore's excellent book on *Modern Spiritualism*.

investigate that the scientific world is cautious, and has need to be cautious, in accepting conclusions depending on observations which cannot be repeated by others and checked. It is not mere prejudice but the legitimate caution that should be exercised in all branches of science that makes scientific men chary of accepting as sufficient the evidence so far offered for telekinesis or even for telepathy. The hesitation will be overcome if and when the conditions under which these things occur are discovered, so that they can be brought more under control and observations repeated at will under definable conditions; but in the meanwhile, as I have said, much would be done to remove scepticism by careful observation under as many conditions as possible.

I now turn from telekinesis, which is to me the most depressing branch of our investigations, to speak briefly of the most encouraging, that which at present promises the most fruitful harvest, namely, telepathy. The Society started with its face already set in this direction, and as we all know its efforts were from the first successful, not only in collecting the spontaneous experiences apparently due to telepathy to which I have already referred, but in obtaining opportunities for experiment and reports of experiments carefully carried out. It is true that it cannot yet be said that the scientific world generally has admitted telepathy as a fact, but it is not uncommon to hear educated persons offering it as a rational explanation of unusual experiences without apparently any sense of invoking an unrecognised cause and even with the feeling that they are stemming the tide of superstition in not admitting anything more occult. Indeed, the acceptance of telepathy is wide enough to expose us to a serious danger that persons who might furnish evidence may refrain from doing so because they think the telepathic question is settled and that there is no further need of observation or experiment. It is fortunate that at least some of our members realise the contrary, as the interesting paper (see *Journal*, Vol. XIII., p. 243) read by Miss Miles at our last meeting shows.

There are two important reasons why much more evidence is required. The first is the one already referred to, that in default of being able to repeat experiments at will under given conditions, we can only establish the truth of telepathy—get it

admitted by scientific men as a *vera causa*—by showing that it occurs between so many different and apparently trustworthy persons under so many different conditions that any possibility of the results being due to chance, or self-deception, or unnoticed indications, may be excluded by sheer weight of evidence.

The second reason for wide experimentation and observation is even more important. It is that we do not yet know the nature of telepathy. There are two opposing views as to its probable nature among those who accept it as a fact. Some, like Professor Flournoy, approaching the subject from the physiological side, believe on *a priori* grounds that the transmission is from brain to brain through some physical medium—that it is, in fact, more or less analogous to wireless telegraphy. Others, like our late President, approaching the question from the philosophical side, are inclined to regard telepathy as a purely psychical phenomenon—a direct interaction of mind with mind. It is in harmony with this second view, if not absolutely essential to it, to hold that mind can exist independently of the body, and is therefore capable of surviving the dissolution of the latter. Investigation into the real nature of telepathy is thus intimately connected with the most important and far reaching problems involved in our enquiry. If the question is capable of scientific determination, however, much more evidence than we at present possess will be required, and any evidence we can obtain of survival after bodily death is likely to throw light on the nature of telepathy and *vice versa*.

The accumulation of evidence is and must be a slow process, not only because very few of us seem able to act as agents or percipients in a manner which lends itself to observation or experiment, but also because of the experimental difficulties inherent in psychical research of which I spoke earlier in this address. Notwithstanding the immense difficulties of the subject, however, evidence is slowly accumulating, and some progress is being made. Lately we seem to have made a distinct advance through the automatic writing of Mrs. Verrall, Mrs. "Holland," and others, and the trance writing of Mrs. Piper, some of which has been put before the Society at several recent meetings, and which is likely to occupy a large place in the *Proceedings* for some time to come.

The evidence needs careful and critical study; it is not of a

sensational character, it is not likely to make good copy for the *Daily Mail*, and I am not sure how far it will impress the majority of readers. Those, however, who follow the work of the Society carefully will, I think, perceive that in these scripts we have at least material for extending our knowledge of telepathy. They will probably be disposed further to admit that the form and matter of the cross-correspondences that occur between the different scripts (produced at a distance from one another) afford considerable ground for supposing the intervention behind the automatists of another mind independent of them. If this be so the question what mind this is becomes of extreme interest and importance. Can it be a mind still in the body? or have we got into relation with minds which have survived bodily death and are endeavouring by means of the cross-correspondences to produce evidence of their operation? If this last hypothesis be the true one it would mean that intelligent co-operation between other than embodied human minds and our own, in experiments of a new kind intended to prove continued existence, has become possible, and we should be justified in feeling that we are entering on a new and very important stage of the Society's work.

XXIII.

By H. ARTHUR SMITH.

May 5th, 1910.

WHEN, just ten years ago, Frederic Myers was elected to the Chair of our Society, he prefaced his remarkable presidential address with these words:—"When I heard that the Council of this Society had done me the honour of electing me as its President for the current year, I felt that a certain definite stage in the Society's evolution had been reached at an earlier date than I should originally have expected. My predecessors in this chair have without exception been men of the highest distinction. The list has included men whose leadership would confer honour on any body of men whatever; on such bodies, for instance, as the British Association or the House of Commons. We have been grateful to these eminent persons for lending the sanction of their names to our early beginnings. And we have other names of similar distinction;—destined, I hope, some day to adorn our list of Presidents. Yet for the current year the Council have preferred to choose a man who has little claim to such a distinction, beyond the fact that he has worked for the objects which our Society seeks, from days even before the Society's formation, and that he is determined to go on thus working so long as his faculties may allow. . . . The time has come when we may fairly indicate to the world that we believe our Society can stand on its own bottom . . . and that therefore we do not need to put forward in its prominent positions only those names which have been made independently illustrious by good work of other kinds performed elsewhere."

If such a man as Frederic Myers thought it necessary to introduce himself to this office in such modest and apologetic fashion,

how much more is it incumbent on myself to justify the taking of a place in such a succession of names, at the invitation of your Council! Myers's hope as to his successors has up to the present been fulfilled. Our Society has been served by a succession of persons distinguished in many ways, in science, in philosophy, in education. If it has now called to its chief office one whose only claim to such a position is his intense and life-long interest in the work before us, it must argue a great confidence in the present strength and stability of the Society.

There is abundant evidence before us that our Society is now strong and stable; and I am sure I shall provoke no jealousy if I say that its strength is due to Frederic Myers himself more than to any one else. In 1882 we began with a small company indeed, and for some years were not infrequently the butt of gibes and sneers. At present, we have no fewer than 1284 names on our books; and these, comprising representatives of many creeds, are to be found scattered over the whole earth—literally from China to Peru. Happily, moreover, there seems to be no decline in the public interest which our investigations attract. The supply of new candidates continues steady, or rather tends to increase in volume.

It may well, then, be asked, indeed I am often asked by persons not conversant with our work, what our Society has done, or what it is doing to explain or justify this extended interest and support. To answer this question completely would, of course, involve the writing of the Society's history through eight and twenty years. To attempt such an undertaking within the limits of time and space which I must impose on myself would be absurd. And it is the less necessary, since I am addressing myself mainly not to the uninformed but to those who have already convinced themselves that there is a sufficient *raison d'être* for our existence. At the same time, in view of the continual accretion to our numbers of new enquirers, who can scarcely be expected to follow all the steps of the past, I have often been impressed with the desirability of presenting from time to time something in the form of a résumé of what has been accomplished, what attempted and as we hope in process of accomplishment. I think, then, it is reasonable and may serve a useful purpose to adduce a brief summing up of the results of our labours from this point of view.

The original programme of the Society comprised six subjects as appropriate for its investigation :

(1) An examination of the nature and extent of any influence which may be exerted by one mind upon another, apart from any generally recognised mode of perception.

(2) The study of hypnotism and the forms of so-called mesmeric trance, with its alleged insensibility to pain; clairvoyance and other allied phenomena.

(3) A critical revision of Reichenbach's researches with certain organisations called "sensitive," and an enquiry whether such organisations possess any power of perception beyond a highly exalted sensibility of the recognised sensory organs.

(4) A careful investigation of any reports, resting on strong testimony, regarding apparitions at the moment of death or otherwise, or regarding disturbances in houses reputed to be haunted.

(5) An enquiry into the various physical phenomena commonly called Spiritualistic, with an attempt to discover their causes and general laws.

(6) The collection and collation of existing materials bearing on the history of these subjects.

This enumeration of our original objects of research is, of course, familiar to many, especially of our older members, but I refer to it, partly by way of introduction to the brief review of our progress which I propose to present, and partly because it seems to me to need repetition from time to time in order to correct misconceptions which one often meets with as to our scientific position.

Repeatedly have I been asked by outsiders, half in jest and half in earnest, what our Society has discovered, or even what it believes on this or that occult matter. Some seem to suppose that the Society is possessed of a kind of corporate intelligence, or that we are wont at our meetings to recite something like a creed which we regard as psychically orthodox. Even stranger misconceptions than these may be met with in some quarters. Some seem to think that candidates for admission are required to go through something like a Masonic initiation or Rosicrucian ordeal, or to face the "Dweller on the Threshold," as described in Lytton's *Zanoni*. Now, in fact, it is obvious enough that if we were to confine our expositions to such

matters as all of us believe, our curriculum would be extremely limited; and if on the other hand we were to pronounce dogmatically on things which some among us believe, we should pretty certainly soon be worried by many dissenters from our ecclesiasticism.

But to return to our programme. The inter-relation of the various subjects mentioned is plain enough. That they have not all received equal attention is also plain, and the reasons for this are not far to seek. In some cases, notably in that of hypnotism and hypnotic anæsthesia, the subjects have been widely taken up and investigated outside our Society. In the earlier days of our existence we by no means neglected this investigation, as our *Proceedings* clearly show. But now that the more familiar phenomena of hypnotism at any rate, have tardily forced their way into scientific recognition—and the steps leading to this recognition are amongst the most instructive and curious in the history of science—now that these effects of hypnotism are daily being applied to practical purposes in various parts of the world, it seems scarcely incumbent upon us to devote our scanty resources of time and treasure to the further proof or illustration of what may be taken to be already established.

The Reichenbach researches, again, have not been neglected. Experiments were made to test the truth of the allegations that to certain sensitives a luminosity was visible around the poles of powerful magnets. But, so far as my recollection serves, these experiments produced few if any satisfactory results.¹ Moreover the interest in them was, I think, of too academic a character to affect any considerable number of our supporters; and this, of course, had to be taken into consideration in the application of the energies at our command. But a subject of enquiry which was not specifically mentioned in our programme but which is of a nature somewhat analogous to that just now mentioned, inasmuch as it involves the study of a special sensitivity, more or less widely, but not universally possessed, has attracted minute attention, which has produced most interesting and important results. I refer to the phenomena of the dowsing rod. The Society, and indeed the world of science generally, is indebted to Professor Barrett

¹I have been informed by Professor Barrett that of recent years the Reichenbach experiments have been renewed with success.

for an exhaustive examination of this strange faculty, the operative cause of which must still, I suppose, be deemed to remain in the region of hypothesis. The dowsing rod has indeed for ages, some would say from the time of Moses, been empirically used and applied in the search for water and mineral lodes for commercial and other purposes. Fortunes have been made by the exercise of the faculty. But never before has any one devoted so much time and careful study to this subject as has Professor Barrett during the past five and twenty years. As a result we have in our *Proceedings* an exposition of the art, a discussion of the theory, and a collection of the ancient and modern bibliography of the dowsing rod, such as had not before been presented to the world.

These are, however, but by-products, so to speak, which have appeared in the course of our quest. Beyond all doubt the subject which above all others has attracted and engrossed the attention of the great majority of our supporters is to be found in our investigation of the evidence for the continuance of life after death—"The Survival of Man." In one department of this enquiry, specifically mentioned in the programme, the results obtained have not been great, namely the examination of houses reputed to be haunted. Stories of ghostly disturbances have reached us from time to time; and thanks largely to Mr. Baggally's and Colonel Taylor's readiness to place their time at our disposal, some of these have been tested; but on the whole, I think I must say, with meagre and unconvincing results. We have found little, if any, trustworthy evidence in favour of what I may call the "ghost story of commerce," the periodic ghost, or the ghost which appears with a purpose. Our records, indeed, contain a valuable monograph by Mrs. Sidgwick on the "Phantasms of the Dead"; but apart from this, the cases which have come before us have been too sporadic and disconnected to suggest any very definite conclusions.

There remains, however, the great subject of all, the demonstration of thought transference among the living, for which Myers happily invented the word "telepathy"; and the collection of voluminous evidence which at least suggests the operation of telepathy between the dead and the living. This

branch of our enquiry has produced an extensive literature, characterised scarcely more by the evidence which it presents of tireless research than by the eloquence with which the results have been propounded and discussed. It has given to the world such works as *Phantasms of the Living*, *Human Personality*, and lastly *The Survival of Man*. It has influenced many of the pregnant writings of Professor William James of Harvard, and it has called forth the numerous and valuable critical essays of Mr. Podmore on the whole subject—a literature which has profoundly influenced the world of thought on matters psychical and psychological, and I venture to think is destined to do so for many years to come. Moreover a great mass of literature has sprung up and is almost daily being added to, outside the ranks of our Society, but almost wholly based on its reports. Some of these works are valuable, many of them much the reverse, but they all tend to show how deep an impression has been made by our work.

“Telepathy,” as I have indicated, was a word unknown in our language until about five and twenty years ago. Now it is scarcely an exaggeration to say that it is as familiar in common speech as “telegram” and “photograph.” Telepathy has been defined by Sir Oliver Lodge as “the apparently direct action of one mind on another by means unknown to science.” This Sir Oliver regards as having been experimentally proved, at any rate to this extent, that “a hazy and difficult recognition is possible by one person of objects kept as vividly as possible in the consciousness of another person,” and in this conviction, if in nothing else, I think all who have followed our Society’s work are agreed. I suppose that the admission of this operation of mind on mind is not yet reckoned orthodox in the world of science, or deemed to be a proved *vera causa*; but it is obvious that in the world at large its recognition is very widespread and is increasing day by day. Now I contend that if by means of these many years of strenuous work our Society had obtained no other result than this, this alone would suffice to justify its formation and labour. It establishes the existence of a factor in the powers of the human mind which may before have been suspected, but never before came within measurable distance of proof; and he would be a bold man who would venture to predict what results may accrue from it in the generations to come. One illustration

of its pretty general acceptance may be given, which is not without its humorous side. Our Society through its various workers has taught the world all it knows or thinks it knows about telepathy, as well as giving it the word. And now what do we see? When our researches carry us into deeper regions, and bring to light occurrences which are calculated to produce more exciting effects on the minds of the observers,—such, for example, as the phenomena associated with the names of Mrs. Piper, Mrs. Verrall and others, especially the cross-correspondences,—our critics lay hold of our own discovery and use it to cast ridicule or pour scorn upon the conclusions we are endeavouring to formulate from these more recondite occurrences. They make a hurried examination of a most complicated series of facts and then confidently assure the world that there is nothing in them but “telepathy.” They beat us, or try to do so, with the stick which we have made for them. Having jeered at telepathy as long as they dared, now that it is established in a simple form, they accuse us of credulity for not assuming its sufficiency to account for many complicated phenomena for which its aptitude is by no means proved, and to which its application seems more than doubtful. We are not in such a hurry. We have not been deterred by scoffs in the past and we shall not now be hurried to unwarranted conclusions by impatience. Our motto has been, and I hope will always be, “*Festina lente.*”

Taking telepathy, then, in its simplest form to be proved, we have under watchful examination the possibility of much more complicated manifestations of the same faculty. That there are such in operation the phantasms of the living and still more impressively those of the dying seem strongly to suggest. But I prefer to leave the analytical examination of this question to experts in science and philosophy, among whom it would be an impertinence for me to claim a place. Many will remember the ingenious illustrations presented to us of the possibilities of telergy, telæsthesia, telekinesis, genius, inspiration, etc., in the diagrams expounded by Sir Oliver Lodge at one of our meetings in 1908, an exposition which personally I hope to see reported in a much completer form than was possible in the limited space of our *Journal*. Nor shall I go at any length into a consideration of the Piper phenomena which of late

years have figured so largely in our investigations. I have, however, been asked to make some reference to the evidence for the identity of the controls from a lawyer's point of view. To this I will return in a few moments, but first I should like to make some general observations bearing on the same subject.

One of the commonest objections urged against the genuineness of communications claiming to come from the dead, is based on the triviality, or in other cases the want of consistency in the messages delivered. True, some of the communications seem trivial, but it is a gross exaggeration to assert, as some have asserted, that all are so. This objection, again, is likely to be more striking to a reader of the reports than to a first-hand witness. No doubt it gives one something of a shock to find in a message purporting to come from Myers solecisms of grammar; and such may be met with. But apart from the fact that, though a few people here and there write good grammar, no human being speaks it in general conversation, how little as yet do we know of the nature of the difficulties obstructing these communications, if communications there be, or of the extent to which the communications are influenced by the personality of the mediums with their various limitations! That there are difficulties and limitations the scripts continually assert. Some one has compared them to the difficulty of talking through an imperfect telephone, and everybody who has tried that will agree that the exasperating hindrances met with are more conducive to forcibleness of expression than to elegance of style. Mrs. Piper's brain, nerves, and muscles may perhaps be the best telephone in the world for the purpose in hand, but may be very far nevertheless from being a perfect instrument. And then again, how little, if anything, we have learned as yet of the conditions on the other side! I think Dr. Schiller suggested in an article which appeared in our *Proceedings* some years ago that a life newly begotten into the discarnate state may have to go through a period analogous to infancy in this life, needing again to learn the use of such faculties as it finds itself possessed of—"an infant crying in the night" and sometimes "with no language but a cry." Or on the other hand, though this would seem scarcely in the same accordance with the processes of nature

as we know them, the discarnate spirit may suddenly find itself endowed with senses, faculties and powers entirely unknown to us, and so may have to cramp itself (if I may use an Americanism) to communicate with us at all. If some of the lower forms of life here are possessed of only one sense, some higher forms of two or three senses, and man of five or six, why may not the liberated spirit enjoy a dozen, or a hundred for the matter of that? For we must assume, if we are to consider the question at all, that the exercise of senses does not continue to depend on the possession of physical organs of sense as we know them. How should we succeed if we tried (reverting to our comparison) to describe through a buzzing telephone the beauty of the rainbow to a man blind from his birth? These intelligences, if such there be, may, again, be as conversant with the fourth, fifth, or higher dimensions of matter, as we are with the first, second and third. Yet once more, it may well be that the attempt to communicate with us, if such attempt there be, involves a heroic act of self-denial or sacrifice on the part of those making the attempt. Some passages in the scripts more than hint that this is the case. In short, until the whole study has progressed much further than it yet has, we must remain hopelessly incompetent to estimate the value, or quite as probably the valuelessness, of such criticism as I have referred to. But surely with such facts as we have before us, this is no sufficient reason for discrediting, still less for abandoning the study.

And now let us briefly consider the evidence for identity from a lawyer's point of view, which subject has been suggested to me. My first comment must be that it is by no means clear that a lawyer's is the most important point of view in a case like that before us. The lawyer is conversant with certain canons which in the aggregate are known as the law of evidence, the exposition of which by some writers occupies a thousand pages or so. These canons are no doubt based on the principles of inductive logic, but in the application of those principles they are cribbed and confined on all sides by the exigencies of forensic practice. It is far from being certain that the dialectic methods of the forum are the methods best adapted for the investigation of questions not subject to similar

restrictions, but carried on under entirely different conditions. And here let me call attention to the important ambiguity which lies in the word "evidence." Probably half the controversies which rage in the regions of theology, politics and philosophy turn on the fallacious use of what logicians call the ambiguous middle; and possibly one reason why we have in Britain the reputation for being excessively addicted to controversy may be found in the fact that our language is peculiarly and unfortunately rich in words which are more than ambiguous. The word "church," for instance, has eight or ten distinct meanings. What wonder then that ecclesiastics wrangle when they come to talk about it? If half-a-dozen politicians meet to discuss "socialism," it is quite likely that no two of them will attach the same meaning to the word. What wonder then if they lose their tempers? So of the word "evidence." As Sir James Fitzjames Stephen points out in the introduction to his *Digest of the Law of Evidence*, and expounds still more fully in his Introduction to the Indian Evidence Act, the word sometimes means relevancy, sometimes testimony, and sometimes proof. It might seem plausible to argue that if there is evidence produced as to an alleged fact, the truth of the fact is thereby made evident. The fallacy is obvious enough when tested, but it is nevertheless operative in the minds of loose thinkers, and nowhere more frequently than in careless dabblers in psychical research. One brief illustration will suffice. The notorious Pigott gave testimony, and perfectly relevant testimony, as to the authorship of the Parnell letters. But half-a-dozen questions of cross-examination showed how very far this relevant testimony fell short of proof. He gave evidence indeed, but made nothing evident save that he was an arrant liar. The same point is enlarged upon in what I have always regarded as a *locus classicus* for the expression of a sane view of some of the problems before us; I refer to De Morgan's Preface to his wife's work entitled *From Matter to Spirit*. It appeared anonymously some five and forty years ago, since which time of course a great deal of water has passed under the bridge; but its authorship is now an open secret, and its wit and wisdom are worthy of the writer of the celebrated *Paradoxes*. I believe the work has long been out of print and is difficult to obtain, so that a quotation at some length is the more justifiable.

De Morgan writes :

One of the greatest pursuits of the world is the study of evidence : we are all engaged upon it in one way or another. But as generally happens, when a word goes much about, it picks up more than one meaning in its travels. Accordingly, evidence passes for that which is given and intended to produce an effect, and also for that which *does* produce it ; there is the *quod debet monstrari*, that which may properly be tendered in aid of a conclusion, and the *quod facit videre*, that which gives perception of truth or falsehood. The difference and the fallacies of confusion arising therefrom are strikingly illustrated in courts of law. While the case is preparing for trial it is the lawyer's business to collect what he then calls the *evidence*, the matter which is to be offered to the jury. It is his duty to see that the evidence is *quod debet monstrari*, not only addressed to the points raised by the pleadings, but in conformity to certain rational rules which are laid down.

And here I may interject, though it may be giving away one of the rather illicit devices of the profession, that counsel advising on evidence in this sense will sometimes manage to introduce matter tending to prejudice the jury in his favour, although he knows it not to be in strictness admissible. De Morgan continues :

Thus it comes before the jury, who are sworn to give a true verdict according to the "evidence," which now means the *quod facit videre*. So far good ; the law must decide what is and what is not fit to be offered as material for evidence. But it may happen that matter slips in which the Court would have prevented if it could (*i.e.* matter which I have called matter of prejudice), but could not, or at least did not, prevent. And now comes one of those collisions in which the jury mind rules contrary to the legal mind. If the ghost of a murdered man were to make his appearance in court in a form which no one could possibly attribute to imposture, optics or chemistry, and were solemnly to declare that the prisoner was not the murderer and then to vanish through the roof, the judge would, no doubt, instruct the jury that they must dismiss the respectable apparition from their minds altogether ; that even if the spirit had offered to be sworn and to stand cross-examination, there would be very grave doubt whether his evidence could have been received, from his probable want of belief in a future state ; but that, as

matters stood, it was clearly their duty to take the vision *pro non viso*. To which the jury would reply, if they believed the ghost, by a verdict of *not guilty*. No honest men would ever make believe that they do not believe what they have in any way been made to believe, if they clearly understand what they are doing.

So far De Morgan; but as to his last sentence I think that experience of the courts will recall many cases in which juries have yielded to judicial direction, and been induced to give verdicts conformable to legal rules of evidence, in spite of conviction forced upon them by matter which I have described as matter of prejudice.

Now let us try to apply this to the case before us, to the evidence tendered to prove the identity of controls, or spirits speaking or writing through mediums. Here I perhaps may interject the remark that, when I was asked to deal with this question, it was suggested to me that I might find some help by consulting and refreshing my memory with the report of the famous Tichborne case of five and thirty years ago. Well, I happen to have in my Chambers a full report of one of the two enormous trials which arose out of that imposture. But when I tell you that the report of this one trial, and that not the more important, occupies five quarto volumes, each of which contains nearly a thousand closely printed double column pages, I think you will excuse me if even my enthusiasm for Psychical Research has not sufficed to induce me to attempt the task of navigating such an ocean. I must content myself with some less onerous method.

It is clear in the case before us,—the proof of the identity of our instructors who claim to speak from behind the veil,—that though there is much evidence *quod debet monstrari*, that is, what lawyers call evidence to go to the jury, there is absolutely nothing that can be called evidence *quod facit videre* (Professor James has somewhere called it “knock-down evidence”) from a lawyer’s point of view; nor can I conceive that there is ever likely to be. Apart from the disqualifications of the supposititious spectre which De Morgan humorously introduced, our enquirers are hampered and restricted on every side by the want of powers which are every moment available to a judge trying an issue. If a witness speaks indistinctly he can be required to “speak up,” and if he

refuses, he may be committed for contempt. If he declines to give a direct answer to a direct question, he subjects himself to the same penalty. He can be cross-examined in detail with the peril of a prosecution for perjury before his eyes. But notwithstanding the disabilities under which our enquirers labour, it by no means follows that we (who constitute the jury) may not be brought reasonably to believe the evidence, informal though it be, presented to us, just as De Morgan supposes the jury to believe the ghost.

Direct "knock-down" evidence is then wanting and probably always will be wanting. But circumstantial evidence of a kind abounds; and in courts of law experience has shown that in many respects the evidence called circumstantial is more trustworthy, safer to rely on than direct testimony. For instance: the question for a jury to determine is the identity of A., who is alleged to have shot B. A witness, C., may come forward and swear that in broad day-light he saw A. fire the fatal shot. In a sense this seems the most cogent proof possible; but in fact it is not so. C. may have an interest in getting rid of A., and may be willing to perjure himself to accomplish his object. This, of course, is analogous to the hypothesis of deliberate fraud as applied to our experiments. Again: C. may have very defective vision and may be honestly mistaken in swearing to the identification. This would correspond to mal-observation in our experiments. But if on the other hand it is by independent witnesses proved that shortly before the murder A. purchased a revolver, that the bullet found in the body exactly resembled others found in A.'s possession, that foot-prints of a peculiar character were discovered leading to and from the spot where the shot was fired and were found to correspond to the marks made by boots known to have been worn by A. at the time, and so on; though not one of these facts taken alone would be quite convincing, their cumulative force might well be overwhelming and might justify a much more confident verdict of "guilty" than the mere unsupported testimony of C., however clear. As Professor James has pointed out in his report on the Hodgson control (*Proceedings*, Vol. XXIII.), this is precisely the character of the evidence before us. It is futile to take it item by item and to proclaim that no one incident in it

proves anything. The evidence must be considered as a whole. *Juncta juvant.* As to its convincing effect when so regarded, opinions will, of course, differ; but in determining this question, we may reasonably apply the principles of logic, which are broader than the technicalities which restrict the law of forensic evidence. All this is indeed somewhat elementary, but some of our critics are not incapable of ignoring what is elementary.

When we appeal to logic, our path is still a thorny one. We are very far from being in a position to apply to the case in hand the four canons (or indeed any one of them) which John Stuart Mill lays down as applicable to experimental methods. We can scarcely even act on the Aristotelian advice to proceed to the unknown from what is known to us, because of the fact that so little as yet is really known. For example: we are undertaking to enquire into the causes which produce the effects of a medium's trance-speech or automatic writing. Before we can reach the conclusion that the cause is the will of a departed human spirit to communicate with us, we are logically bound to eliminate, not only every known cause, if any there be, but also any suggested cause which we ought to regard as more probable. I do not think there can be said to be any cause for these phenomena which we are entitled to describe as *known*; so that the discussion of probabilities is all that is left to us. And here our difficulties thicken around us. In the attempt to estimate the balance of probabilities we find ourselves without the known quantities which we need to enable us to frame even an indeterminate equation. Putting fraudulent conspiracy out of view as a cause of the facts we are investigating, there would seem to be at least three possible explanations of these facts to be considered, other than the hypothesis of actual communications from the dead.

The first which I would mention is of a metaphysical nature and will not perhaps appeal to many minds. A little more than twenty years ago Sir Edwin Arnold published in the *Fortnightly Review* a brief essay entitled "Death—and afterwards," in which he eloquently discussed some aspects of the question before us. This essay was shortly afterwards published separately and has since run through many editions.

To it are appended some critical examinations of his thesis, which appear anonymously, but which are evidently the production of acute thinkers. From one of these I will quote a statement of the metaphysical supposition to which I refer. The writer says:

When the Galileo of Time—surely coming—shall have made conceivable, if not actually accessible to us, what answers in the temporal sphere to the antipodes we know as spatial fact; when we have begun to realise that “past and future” are no more absolute than the “over and under,” the “above and below,” which now we know to be reversible, not only in conception, but in physical experience; *then* perhaps we may alter somewhat our estimate of the comparative value of the local temporal sensuous character of a fact, and our notion of what constitutes its real significance.

Professor Pigou in a recent number of our *Proceedings* has alluded to the same idea in the same connexion. Speaking of the survival of man he says:

The ambiguity connected with “survive” is philosophical. If any one asks whether cats survive immersion in water, it does not occur to us to bring to bear on that problem a metaphysical discussion concerning the reality of time; we assume, in fact, that time is real, and we mean by “surviving immersion,” being alive *after* immersion. When, however, our question relates to men and women and bodily death, the idealist philosopher enters the arena and claims that time and all that therein is, is a purely subjective condition of human perception; that in reality there is no after and no before; that survival and death alike are appearance; that men and women, as spirit, neither survive nor die, but in some sense eternally are.

It was not likely that such a deep philosophic thinker as Myers should have overlooked this speculation; and he has not overlooked it. In more than one passage in *Human Personality*, and also in his essay on Wordsworth, he discusses, but does not accept, the suggestion. I dwell on it now because there seem to be cases before us to which it may conceivably apply. I am not referring to prophecy or to the predictions of the Delphic oracle or to the legends of Mother Shipton, or to the occasional happy shots of so-called astrologers; but I recall to mind what we know as “the Marmontel

incident" in Mrs. Verrall's script, and other somewhat analogous premonitions; certain striking predictive crystal visions which have come under my own notice, and also some occurrences described in the experiences of Swedenborg. I might refer also to the seeming confusion between past and future which sometimes appears in the automatic scripts. See for example the "Neptune" and "Pharaoh's daughter" references in *Proceedings*, Part LX., p. 193. If the conjecture is to be entertained at all, it would point to the idea that what Aristotle called the "categories" and the schoolmen the "predicaments" have no relation to things as they are, but amount only to a rough formulation of the present conditions of human thought; and these not absolute or essential, but subject to extension or evolution with the progress of knowledge, so that a conception of our relation to space (for example) which may have been unthinkable to Aristotle or Aquinas has now become the common property of every school-boy; and possibly the conception of our relation to time may be destined to a similar change. I am not, however, as confident as the writer above quoted that the Galileo of time is "surely coming."

A second conceivable explanation of the phenomena before us is of a quasi-theological nature. The sacred writings of many religions, and the folk-lore of many nations are full of assertions of the existence of beings intelligent and potent, in a sense intermediate between this world, and what we sometimes call the other world or world to come. Some are represented as benevolent, others as malevolent to man, others again as scarcely the one or the other, but capricious, tricky sprites addicted to practical jokes and petty mischief. Cardinal Newman seems to have accepted the existence of such a race of beings; in his *Apologia* he writes:—"Also besides the hosts of evil spirits I considered there was a middle race, δαιμόνια, neither in heaven nor in hell, partially fallen, capricious, wayward, noble or crafty, benevolent or malicious as the case might be." To such beings he ascribed potent influence in matters of church and state. A similar view appears in Father Hugh Benson's recent work *The Necromancers*. I do not propose to discuss such vague circumstantial evidence as may be deemed to exist in favour of the existence and operation of these δαιμόνια, elementals, or whatever they may be called. This, however,

may be said with reference to them, that if such beings exist around us, their operations may have a bearing not only on the investigation of trance-speech and writing, but also on the occurrences known amongst us as physical phenomena, and of the pranks so often recorded, so seldom well authenticated, ascribed to poltergeists. For myself, if I see no very cogent *a priori* reason for discrediting the hypothesis of such powers in our environment, I see little that is calculated to carry conviction on the affirmative side. But this may be added: if the phenomena of trance and other mediumistic communications can conceivably be ascribed to such a cause as this, we may well despair of attaining any evidence conclusive of the identity of discarnate human beings purporting to communicate with us. Ignorant as we are of the powers and means of information at the disposal of such *δαιμόνια*, if such there be, it is rather hopeless to expect to find any personation agent to put in our polling booths, competent to detect the deceptions which may be practised.

The third alternative to the reality of messages from discarnate human beings lies in the possibilities of telepathy among the living. As already said, simple telepathy so far as experimentally proved is not sufficient, is, indeed, far from sufficient to account for the occurrences which we seek to explain. But the possibilities of this faculty are at this moment under careful observation, as you all know. The records of our experiments are voluminous; they are being added to and placed before you year by year, and it would serve little purpose now for me to speculate as to the ultimate results of an enquiry which is in hands much more competent than mine. To these three possible explanations other philosophic speculations might of course be added; such for example as the existence of what has been called a Cosmic reservoir of memories to which the subliminal consciousness has access. But our limits prohibit the discussion of such hypotheses.

And now we come back to the primary question: Considering the facts before us, and weighing as best we can the probability of the alternative explanations which I have tried briefly to suggest, are we entitled to say that Myers "being dead yet speaketh?" Personally, I am not convinced. But then I am in the disadvantageous position analogous to that of a person who tries to form an opinion on a complicated

issue at law from merely reading the evidence, without having had the opportunity of seeing or hearing the witnesses in court. And one cannot but be impressed by the fact that many who have assisted in the experiments have been convinced. Moreover, when I wrote this last sentence, I had not read the latest number of our *Proceedings* (Part LX.) which, I think, carries us many steps forward.

Before I conclude I will venture to call attention to two matters which seem to me worthy of earnest consideration, and to point in the direction of an affirmative conclusion. First, it is a strange thing, as was pointed out by De Morgan long ago, that "in spite of the inconsistencies, the eccentricities, and the puerilities which some of them (the supposed communicating spirits) have exhibited, 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 than remarkable, is even marvellous. The 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 current ideas of a future state, in order to gain belief in the genuineness of their pretensions!"

The second point is this. It is as certain and demonstrable as anything can well be that many of the most striking developments which have appeared in our recent investigations,—I refer more particularly to the cross-correspondences,—have not originated in the speculations, the ingenuity, or the invention of any of the enquirers on this side,—at any rate, not in their supraliminal consciousness. These methods have come as a surprise to all concerned, and I cannot but consider this to be in some degree an argument for their genuineness. From the first, perhaps, the unexpected might have been expected; and this is not such a Hibernianism as it at first sight appears. What it means is that, assuming the communications to be real, we might have expected surprises, but could not have expected to forecast their nature. And this is just what in fact has happened.

In the preceding summary of our work and its results it may be observed that there are so many "ifs," so many instances of the use of the cautious subjunctive, that some may be dis-

posed to ask whether the attainment of such uncertain results after so many years is sufficient to justify our labour. Is the game worth the candle? As to this, I have already expressed my view as to the incalculable value of the discovery of telepathy, even in its most elementary form. Now I will go further. I agree, if I may presume to say so, with Professor Barrett that we seem to be "On the threshold of a new world of thought." I agree, if again I may presume to say so, with Sir Oliver Lodge that we seem to be "at the beginning of what is practically a new branch of science." And if these weighty estimates of the results attained be accepted, what becomes of the significance of the phrase "after so many years?" What are twenty-five years in the history of a science, a discovery, an invention? Is not this history in all its course a protest against impatience? I believe that some twenty-two centuries ago Hero in Egypt discerned the possibility of utilising the expansive force of steam as a means of driving a machine; and he was probably not the first. But the discovery had to wait all those centuries before it was taken up by Watt and Newcomen, Trevithick and Stephenson, and this force was turned to account to do so great a portion of the work of the world as we find it doing to-day. The same reflection applies to magnetism and to electricity, the first observers of which little dreamed of the results which would accrue from their groping experiments; and I suppose that the school-boy's humble kite, after playing an important part in the history of electricity, may be regarded as the progenitor after a long period of incubation of the aeroplane; a sort of protozoon from which has been evolved an eagle. Again, it is easy to smile over the crude hypotheses and futile labours of the old alchemists. But owes modern chemistry no debt to those patient explorers? It is likely enough that a century or so hence our successors in these enquiries will smile at our methods and conjectures much as does the modern chemist at the theories and dreams of the alchemists; but we shall have helped them nevertheless, and if they are as wise as we hope they will be, they will not despise the day of small and feeble things.

But we need not elaborate an argument to justify our existence. We are not called upon to justify our existence to troglodytes; and critics who have no higher or better point of

view for estimating the value of a scientific discovery than by calculating its immediate commercial or utilitarian value, may fairly be so described.

Apart, however, from any such questions of detail, I contend that our studies are justified on the ground that they are helping us to a wider view of the universe in which we live, in which I think we shall always live, in which, perhaps, in a sense, we have always lived; to lift us, as one has said, from "a mere planetary consciousness which naturally starts from the earth as a mental centre, to a solar or systematic consciousness more consistent with the Copernican era, or yet higher, and by a completer generalisation to a cosmical consciousness, of which indeed the foregleams may be discerned in the very questions we ask, in the very doubts suggested to us, in the very paradoxes of which Nature is full." We have, I venture to think, done much towards undermining the gross materialism of some scientific thought, which a generation ago threatened the higher conceptions of all matters psychological and spiritual.

Some of you will doubtless remember the intensely interesting presidential address given to us by Sir William Crookes fourteen years ago, in which by a series of ingenious speculations he demonstrated the folly of what may be called a negative dogmatism, which would seek to discredit the exploration of regions hitherto unknown or but imperfectly known, on the ground of the seeming inconsistency of the phenomena presented with the ordinary course of nature familiar to us; or, if I may use a mathematical comparison, the folly of attempting to frame an equation to a curve, before, with the imperfect instruments of observation at our command, we have been able sufficiently to discern its sweep to determine whether like an ellipse it returns on itself, or like a hyperbola it stretches forth into the infinite. It is perhaps somewhat daring to attempt to add an illustration in similar vein to those in that address so brilliantly presented. But I have often thought that the prophecy of despair with which the materialist would depress us may be compared to the despair which might fall on an ephemeral insect which we will suppose to have come into existence at the noon-tide of a sunny day, and to be endowed with the faculty of scientific observation. He would, after living, say, a quarter of his life-time, notice that the sun, the source of

light and heat was gradually descending towards the horizon of the sea. His own philosophy would tell him nothing of the sequence of day and night, for he has never seen the sun ascending. His science then would boldly, and, from his point of view, reasonably, conclude that with the setting sun all life would cease. So our materialistic science tells us that the solar system which we know is slowly wearing itself out by friction and radiation; that the time surely approaches when the sun will be dark and cold with all its planets engulfed in its mass, and that universal death will reign, having put all enemies under his feet. But may not this despairing cry be as false as that of the ephemeris which mourned the setting sun? Who can deny the conceivability of another cycle of existence as truly growing out of this we know as day follows day, æon following æon by equally natural process, marking the systole and diastole of the heart of the Eternal? Are there not indeed ancient words which declare as much, when of the visible universe we read "as a vesture shalt Thou fold it up and it shall be changed, but Thou art the same; Thy years fail not." "The things which are not seen are eternal"?

In conclusion let me quote again from Sir Edwin Arnold's essay:

When we regard the stars at midnight, we veritably perceive the mansions of nature, countless and illimitable; so that even our narrow senses reprove our timid minds. If such shadows of an immeasurable and inexhaustible future of peace, happiness, beauty and knowledge, be but ever so faintly cast from what are real existences, fear and care might, at one word, pass from the minds of men, as evil dreams depart from little children waking to their mother's kiss; and all might feel how subtly wise he was who wrote of that first mysterious night on earth which showed the unsuspected stars; when

Hesperus with the host of heaven came,
 And lo! Creation widened on man's view!
 Who could have thought such marvels lay concealed
 Behind thy beams, O Sun? or who could find—
 Whilst flower and leaf and insect stood revealed—
 That to such countless orbs thou mad'st us blind?
 Why do we then shun death with anxious strife?
 If light can thus deceive, wherefore not Life?

XXIV.

By ANDREW LANG.

May 16th, 1911.

SINCE the noble peer who, to the carnal eye, seemed "but a *landscape* painter" informed the village maiden that he was "Lord of Burleigh; Burleigh House by Stamford town"; no mortal—not even the village maiden—has been so much surprised as I was, when invited to be President of the Society for Psychical Research. This is, indeed, "the burden of an honour unto which I was not born." My illustrious predecessors have been eminent in the most severe sciences—involving an extensive knowledge of the mathematics, in the first place; and, in the second, a personal and intimate acquaintance with the natural history of the fugitive molecule, and the shy and retiring ion. Among such distinguished predecessors I may be permitted to mention Professor Barrett, of the Old Guard. We argue glibly, now, for or against "telepathy." The idea of such intercommunication of distant minds, or brains, or both, not through the normal channels of sense, is as familiar to modern savages, "vacant of our glorious gains," as it was to Hegel; and, again, as it is to the untutored Gaelic-speaking Celts of North-Western Scotland. The term "telepathy" we owe to Mr. Myers. But Professor Barrett, as early as 1876, introduced what we now call "telepathy" to the notice of the British Association itself at Glasgow, of all places, and presently he made the earliest experiments of note in "thought-transference" between persons in normal conditions. Our obligations to Professor Barrett do

not end with his introduction of thought-transference to the British Association at Glasgow, which, I fear, like the Turkish passengers in Thackeray's poem "The White Squall" "thought but little of it."

I can think of no work published under the auspices of the Society which contains more stable evidence of the existence of strange neglected faculties in human nature, than Professor Barrett's two papers on "The So-called Divining Rod."¹ In the five hundred pages of this book, which is not in the least degree sensational, or rhetorical, a book which demanded serious disinterested labour, we really have proof, I think, of some process by which the human intelligence obtains information—marketable, practical information—in ways which are still obscure to psychological science. A faculty which had been dismissed to the limbo of popular superstitions turns out to be a fact, and a serviceable fact. I cannot but regret and condemn the flippancy of my Lord Byron, the poet. His mother-in-law, Lady Milbanke, was a dowser or water-finder, with the divining rod. On her regretted demise, Lord Byron said that she would find the faculty useful in the place where, according to his teleology, she had gone!

Some of my predecessors in this Chair have been distinguished moral philosophers; others have been statesmen; others metaphysicians; others have been psychologists, learned in the mechanism of the brain and the nerves.

One was a poet with a note of his own, unique and unmistakable, the differentia of a poet; he was a keen and gracious literary critic too; a scholar, whom I first knew in the merits of his Latin verse; in fact was universally gifted. He, over and above all this, was a humourist. Yet he turned away, in seeking an aim for his energy, from all these things, and devoted himself to Psychical Research. He studied the *arcana* of body and mind; he made himself an authority about hypnotism—recognised as such by the authoritative; he was the Founder, it may be said, and the inspirer of modern Psychical Research, and, happy in his friends, he was accompanied by others who could temper, by a sagacious and humorous scepticism, the enthusiasm of his nature. That poetic enthusiasm, however, was indeed bridled in him, as I have

¹ *Proceedings*, Vol. XIII., pp. 2-282; Vol. XV., pp. 130-383.

already suggested, by a gift extremely rare among the earnest, of a keen sense of humour, an exquisite irony.

No Society with aims like ours, not, indeed, novel, but new in our age, could be more fortunate than ours was in the leadership of that group; of Mr. Henry Sidgwick, Mr. Edmund Gurney, Professor Barrett, Mr. Frederic Myers, and latest lost, Mr. Podmore, whose mission was to throw cold water on too sanguine brethren. In our other Presidents we have been happy enough to possess men of the highest intelligence in the most varied fields of life and action; while, in the only lady who has presided over us, we recognise the patience and open mind of Science, truly so called, with the resolute fairness and absence of bias, and, if I may use a term not really frivolous, with the sportsmanlike quality—which is far from being universally present even in scientific historians; and even in leaders of physical science.

On this matter of fairness much is to be said: for the peculiarity of many of our honourable adversaries is that they believe us to have a bias, and themselves to have none. Now every thinking and rational being is, naturally, of bias and prejudice all compact. The essential mark of the scientific temperament is to know that bias we *all* have, and to guard against it. Monsieur Charles Richet states the case well in our *Proceedings* (Vol. V., p. 22). “There *is* such a thing as good faith, perfect, stainless, absolute; but we almost never meet it, and *should not even expect it in ourselves*. Strive as we may, we are always led on, more or less, to give a *coup de pousse*, that is, to press our conclusions in the direction which we prefer. We may resist the temptation; but that is un-availing, for, if we do, we press too hard in the opposite direction, which is just as bad and dangerous.”

Exactly; but not as dangerous to *ourselves*. In such delicate equilibrium let us tip the balance *against* our desires. We may be wrong, either way, but if we give that little touch, that *coup de pousse*, against our inclinations, at least our consciences are clear. Besides not much can be lost to the cause of knowledge by the tiny tip of the balance against our inclinations. If we have no evidence so firm that it cannot keep its equilibrium against a mere *coup de pousse*, then our evidence is almost *négligeable*.

Indeed it is true that the subjects which we study are extremely evasive; like tricky *follets* which play at hide and seek with us. But this is not a peculiarity of our topics alone. How often does it happen that, in history, we *almost* lay our hands on the truth, but are disappointed by a mutilated document! In the study of Homer and his age, we are baulked by the spoliation of ancient burial cairns, and by a blank in an important passage of Diogenes Laertius. The fairies have spirited away the essential words; "the *Irruntarinia* have taken them," as the natives of Central Australia say—but we pursue our studies, historical and archæological; and in psychical research, in spite of all the evasions of the truth for which we seek, we should not be more easily daunted than in history and archæology.

It is in no conventional humility that I recognise my too patent inferiority to each and every one of the former Presidents of our Society, and to many of its actual members, whom I would gladly see in my place. Not only am I ignorant of physiology and experimental psychology, but I have only once, by accident, seen a person under hypnotic influence, and I never but once was in the same room with a professional medium,—a famous medium she was,—but a complete failure on that occasion! I have lately been taxed by the author of a book on our subject (a book which I happened to review) with my "aristocratic" aversion (he called it "aristocratic") to paid mediums. But surely the reasons for my sentiment are conspicuous enough. If there be such faculties as telepathy, premonition, clairvoyance, and the powers of holding intercourse with the dead, and summoning them up in material form, we have good reason to think that such faculties cannot be turned on at will, punctually, for money down. As *The Scholar-Gipsy* says:

"It needs heaven-sent moments for this skill."

Consequently the punctual paid medium, being human, and earning a livelihood by his or her alleged faculty for making tables float in air, or jump about the room, is tempted to cheat, and gets caught by the ankle, like Eusapia, where her ankle should not be. Our records abound in examples of the detection and exposure of paid mediums, to whom the most

honourable amateur medium must speak in the words of the poet :

“Said Fanny, though tears it may cost,
I think we must part, my dear Sue,
For *your* character’s totally lost,
And *I* have not sufficient for two.”

The most honourable people who have had what they think supernormal experience are subject to illusions of memory, and the temptation to give that tiny *coup de pousse*. We must be most carefully watchful of ourselves and of each other: while of the paid medium I wish that we could steer clear altogether. We would never be trusted with a paid medium if I had my way. I have therefore never resorted, for scientific or other purposes, “to them that mutter and peep,” professionally. My qualities, in this field of study, are first, I venture to think, a fixed desire to be sportsmanlike—“at least as far as I am able”—and, in the second place, familiarity with the historical, the folk-lore, and the anthropological aspects of the topics which we study.

These aspects do not greatly interest the Society, for what the Society desires is “modern instances,” fresh evidence from just persons ready to submit to cross-examination. But in my own mind the enormous volume of historical and anthropological reports of supernormal phenomena, and their striking uniformity with alleged modern experiences, produces the conviction that so much smoke can only be explained by the existence of some fire. I must not speak of the psychical experiences of savages; these, for want of contemporary records duly attested, are illustrative, not evidential. Nor must I, for the same reason, dilate on the strange stories of the psychical experiences of men of genius. This is a most curious theme. Among such cases, in various degrees, I have observed those of the wraith of Byron, seen by Sir Robert Peel; of incidents in the lives of George Sand, Goethe, Dickens, Thackeray, Lord Nelson, Dr. Donne, Shelley; the last words of de Quincey—a most pathetic story;—the experiences of Sir Walter Scott; and—not in the supernormal exactly, but in the “subliminal” way—a record, from his own pen, of the Duke of Wellington. But this is “the blue smoke”

of literature; and of history, you will say. Still, with this blue smoke there is some fire, as the cause thereof. The Duke of Wellington, in a private letter of his, published in Sir Herbert Maxwell's *Life* of that great man, could not guess that he was playing into the hands of Mr. Myers's theory of the Subliminal Self, and Mr. Myers obviously never read the letter.

To be fair is the first thing of all, and I dare to say that the Society has been fair. It is not in human nature not to make mistakes, and never to be inclined to accept evidence which examination proves to be erroneous; never to indulge in hypotheses which criticism demonstrates to be worthless. But when the Society has been deceived, it has not concealed the fact, and, as to hypotheses, as a Society we have none. The Society, as such, has no views, no beliefs, no hypotheses, except perhaps the opinion that there is an open field of inquiry; that not all the faculties and potentialities of man have been studied and explained, up to date, in terms of nerve and brain. Now this opinion is also, I presume, entertained by the most stalwart and emancipated "rationalists." Their belief, however, I suppose, is that everything in human nature can be, and probably will be, explained on terms, chemical and biological, satisfactory to themselves. The members of the Society, as a rule, perhaps, though not necessarily, are not absolutely sure of *that*: perhaps there are other things to be discovered, though what these other things may be, at present we know not. This mere conception of the possibility of the existence of faculties not readily to be explained in terms of what, in the airy currency of speech, we call "matter," is, I think, that in the Society which irritates so many people. If other members of the Society agree with me in the hope (in my own case the belief) that many orthodox theories of all kinds are apt to be upset in the course of time, that new fields of knowledge are perhaps to be annexed, our attitude may, doubtless, be called Romantic. Yet in other fields I have seen my early romantic aspirations made actual; I have seen a vast region of the historic past, in which from boyhood I fervently believed, thrown open by the spade of the excavator. I have seen Homer's "golden Mycenae" and "Crete of the Hundred Cities" won from the realm of dreams by Dr. Schliemann, and by Mr. Arthur Evans, and their followers.

Therefore I may not live to see, but I hope that later generations will see, certain world-old world-wide beliefs find scientific recognition. Hegel believed in almost all the "super-normal" phenomena which we, not necessarily believing in them, have the audacity to study: and the brain of Hegel was not, as Mr. Carlyle said of Mr. Keble's, "the brain of a rabbit."

I spoke of my desire to be fair, and in my desire to be fair I have deliberately exhibited my bias, my romantic prepossessions. I would, as a matter of taste, prefer certain facts to be established, rather than not. I would even welcome with pleasure an indisputable *Poltergeist*; not that I think *him* a desirable inmate of the universe—far from it. When I say *Poltergeist*, I mean an authenticated instance of the queer disturbances and movements of objects, of which history is so full. Thus in a very early Life of St. Dunstan we find that, as a boy, he was a Somnambule, in mature life was a centre of flying and falling stones, and, before death, was bodily levitated, bed and all, before the eyes of the bewildered monks. These are not saintly miracles. Men would rather conceal than invent them about a holy man, and they are parallel in character to those modern instances on which Mr. Barrett lately read a paper, and to Claire Claremont's case, as given in the journals of herself and Shelley. In short I am not certain that this kind of thing never occurs. But to suggest to little poltergeistish boys, by a gentle correction, that they should not be mediums, appears a sagacious measure. I have lived to see many so-called scientific certainties proved to be fleeting phantasms of hypothesis, and more of them, I think, will go by the primrose path to the gulf and grave of Lachmann—and other learned persons! But these expressions of bias are only made in a spirit of fairness, and I must not, dare not, say that the scientifically orthodox would rather prefer that there were no *Poltergeist*; even nothing corresponding to what we call "Telepathy." The orthodox believe themselves, I am aware, to be wholly destitute of bias and prejudice,—and surely they ought to know! But were I to think myself destitute of bias, I would be mournfully bereft of humour; and, were I to conceal the circumstance, I would be equally devoid of honour.

None the less, I do not, at present, believe in a *Poltergeist*: in fact, for the moment, you have a sceptical President, who gives the *coup de pousse* against his inclinations. Other prejudices possess me which I shall later divulge. As they are on the sceptical side, perhaps they ought not to be called "prejudices," but "the intuitive monitions of stalwart common-sense, and genuine inductive science." (I have always heard that Inductive science is "true and tender," and Deductive science "an old offender.")

Meanwhile, though entirely destitute of hostile bias, our critics are, certainly, a little careless and inaccurate. Perhaps this error springs from a strong consciousness of intellectual superiority. They should remember that their native genius can scarcely be superior to that of the great Napoleon, who fell, to the regret of the Whig party, and of Lord Byron, and Mr. Hazlitt, by plunging into wintry Russia without waiting for the arrival of his supplies, and without even providing instruments calculated to prevent his cavalry from slipping about on the frozen roads. With the same Napoleonic confidence in their own intellectual superiority, our adversaries criticise us without taking the trouble to read what we have written; or even to re-read what they have written themselves. This negligence can only arise from their sense of intellectual greatness. Thus a friend of my own, whom I do not name, was criticising the Society's *Census of Hallucinations*. "Thousands of persons," he wrote, "were asked whether they had ever seen apparitions, and out of these people some hundreds, mostly intelligent foreigners, replied in the affirmative." There was no truth in these assertions! Of the persons who answered the questions (which, of course, did not ask "whether they had seen apparitions") in the affirmative, 1499 were of British birth, 185 were *not*, and, of course, were therefore "unintelligent." "For all that I can see, foreigners is fools." I had vainly warned my scientific friend that his statistics, as to the proportions of British subjects and undesirable aliens, were incorrect. Confident in his intellectual superiority, he rushed, like Napoleon, on his doom, and published his fantastic statistics. I might also mention a foreign critic, foreign but not unintelligent, Herr Dr. Parish, author of a popular work, *Hallucinations and Illusions*. He, too, criticised the Society's

Census of Hallucinations. He got rid of the phenomena by misstating the facts in the report under his eyes, and by then explaining away stories which, as he gave them, were of his own unconscious manufacture. He also accused the reporters of not taking the very precautions which they did take and especially emphasised!

Again, Dr. Pierre Janet (foreign, I admit, but intelligent), in his work, *Les Névroses et les Idées Fixes* (1898), made much use of Miss Goodrich Freer's valuable paper on "Crystal Gazing" in the Society's *Proceedings*. But he attributed this lady's experiences not to herself, but, now to "a young girl," now to "a poor seeress," now to "a rather mystic person." He then triumphantly explained the experiences—by the theory which Miss Goodrich Freer had herself advanced in the vast majority of cases, namely, by the revival of memories—but he did this without saying that the lady had anticipated him.¹

This kind of criticism "is not cricket," perhaps; but nobody is ever *consciously* unfair. We are all only subject to the hallucinations of our bias, to Bacon's "spectres of the cave" (*idola specus*), and men of science, like Sir David Brewster, have before now given, not the *coup de pousse*, but the *coup de botte*, to their own signed and written statements of their own strange experiences. Almost equally painful examples of this error, the error of superior persons in thinking themselves infallible, may be gleaned from a work no older than yesteryear, *Studies in Spiritism*, by Miss Amy E. Tanner, Ph.D.² Miss Tanner is a Doctor of Philosophy, of what University I know not. On some points I think, against my bias, that she is right in her criticisms, but am open to conviction if she can be proved to be wrong. On her first page she states that "the Psychical Researchers" (under correction I suppose her to mean the Society for Psychical Research) "have printed voluminously, persistently calling their work 'scientific,' and maintaining that they have 'proved' certain facts bearing in the most fundamental way upon personal survival after death." "Whereby we have" drawn to ourselves "a large following," and so forth, and so forth. Dr. Tanner must have overlooked, "In the mad pride of intellectuality," as her country's chief

¹ See my *Making of Religion*, Appendices A and C.

² Appleton & Co., London and New York, 1910.

poet says, the perpetual protests of the Society that, as a Society, it never expresses any collective opinion. No Society does. The Folk-Lore Society may publish my theories of Totemism. But they also publish those of several benighted members who are so misguided as to reject my views. The British Academy publishes, but is not committed to, the opinions of Mr. Ridgeway as to who the Romans really were,—and so on, in every case. If Mr. Feilding and other observers thought that Eusapia did some inexplicable things in their presence, and said so in our *Proceedings*, other members of our Society arose and said, in the same work, that the performances might be very easily explained by the old familiar tricks. But so superior are our critics that this simple fact—every member may air his own opinions, and the Society has contracted itself out of all responsibility for every opinion—is unknown to our censors. By sheer force of native genius, *they* may say what they please, quite independent of the simple truth. Not only does the Society abstain from offering any opinion as to the Society's having "proved" certain facts bearing in the most fundamental way upon personal survival after death, or any other facts, but the Society continually publishes the essays of members who maintain, in certain cases, that no such proofs have been produced. A member is very welcome to disprove, if he thinks he can, all evidence even for Telepathy. The members who argue on the negative side, as regards communication with the dead, in the *Proceedings* of the Society are, I think, more numerous than the members—if any such members exist—who argue in the affirmative: who say that such communications are proved. Of course if our critics say "you should not publish the observations of members with whom *we* do not agree," of members who take the affirmative side, I understand them, and partly sympathise with them. But, unluckily, the constitution of the Society obliges us to hear all parties, and to side with none.

My own bias, to proceed in the path of confession, curls away from Mrs. Piper and from all professional mediums. A case of abnormal psychology so curious as hers is worthy, indeed, of the study of orthodox psychologists, and I would be the last to complain if our Society left her for three or four years in the hands of *savants* who think, like Dr. Hall, that they might

succeed in exorcising all her "sub-personalities," all her "communicators," and making her a perfectly normal human being; which she is, apparently, when she does not voluntarily pass into a very curious and enigmatic mental condition. As to the real nature of that condition—as to whether, when apparently entranced, she is acutely conscious—the reports of Dr. Hall and Dr. Tanner are too self-contradictory and too casual to enable me to form any opinion. One cannot even be certain that on all occasions the condition is absolutely the same.

My own opinions are almost identical with the hesitations of the late Professor William James as described by him in the *Proceedings*. Much more evidence than has been published is needed before I can enter into the way of belief in the identity of Mrs. Piper's "communicators" with the dead men that they profess to be. As at present instructed, I believe in nothing of the sort. In the matter of experiments I prefer to deal with highly-educated British subjects, such as the ladies to whom we are obliged for so many automatic writings. I have read with much interest and some agreement Dr. Tanner's criticisms of what are called "Cross-Correspondences." But criticism of her criticisms in detail I must leave to writers better acquainted than myself with those perplexing documents. At the lowest they illustrate the singular workings of the sub-conscious mind, especially in the matter of impersonation. I have read, for example, passages in the documents which bring to my ears the very accents of the voice of one of the "communicators," and imitations of his style which, I think, the conscious self of the most consummate parodist could not compose. In short, there are cases in which communicators are at once so perfectly impersonated and so thoroughly false, that our rude forefathers would have regarded the subconscious self as a synonym for the Devil. If this view were correct it would give a great shock to the Rationalist.

After prolonged study of the documents, I find myself in complete bewilderment over the Cross-Correspondences, with a tendency to think that, in matters so vast, so various, and so incoherent, it must needs be that patient ingenuity will discover correspondences which some minds will accept as the result of design, and others as the result of fortuitous coincidence.

Between chance coincidences, and subconscious memories; by supposing, for example, that Mrs. Verrall had read the Neoplatonists though she believed she had not, Dr. Tanner can explain away most things. Yet if she has herself read Plotinus, Porphyry and Iamblichus in the original Greek, I am sure she will admit that she could not entirely forget the circumstance; these writers demand more serious application than an ordinary novel.

When it comes to three cases of predictions automatically written, Dr. Tanner is puzzled. Subconscious memory will not explain, but 'why not try chance coincidence? Apparently Dr. Tanner does perceive, though many other critics do not, that the theory of chance coincidence may be overworked.

On one "supernormal" point I have to confess myself resolutely credulous, namely telepathy. The word "telepathy," of course, is a merely technical term to cover a variety of incidents, some of which, but not all, might be explained on the hypothesis that minds may intercommunicate by other means than the channels of the senses. On this point I am convinced by personal experience, by experiments, made in my presence, and by others, carefully and contemporaneously recorded by friends whom I can entirely trust, and by spontaneous experiments of the same and other friends. Of course the evidence which, in the circumstances, is sufficient for me, need not be convincing to, or, perhaps, need not even be thought worthy of a moment's consideration by other people.

Still, I am wholly convinced. When Dr. Tanner's ally, Dr. Stanley Hall, writes, "only when conditions can be so controlled that, *e.g.*, a teacher can announce beforehand that, on such a day, hour, and place he will demonstrate these things, can or will they be accepted by any sound scientific mind," one is merely amazed by the learned Doctor's attitude. For my part I should at once regard the "teacher" as a humbug. If either Keats or Wordsworth had announced that, in a teacher's lecture-room, on January 29, 1820, at three forty-five P.M., he would write an ode of immortal merit, and if he *did* write it,—we all see that he must have composed his poem before he made his promise, and committed it to memory. "The wind" of poetic inspiration "bloweth where it listeth," and so does the telepathic breeze, which requires a

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harmony of an unguessed-at kind between two or more minds. Thus experimenters may now hit on the "heaven-sent moment," and now miss it. If "sound scientific minds" will not believe in telepathy till its conditions can be punctually produced to order, they can never believe in it at all. I see no reason to suppose that the existence of telepathy can ever be demonstrated to the satisfaction of this order of scientific intellect. But, believing in telepathy myself, I take pleasure in the opinion that we do not yet know all about everything; that, if we persevere, we may discover numbers of curious and interesting things.

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