

PROCEEDINGS

OF THE GENERAL MEETING OF THE SOCIETY ON

July 18, 1883.

The fourth general meeting of the Society was held at Willis's Rooms, London, on July 18, 1883,

HENRY SIDGWICK, ESQ., PRESIDENT, IN THE CHAIR.

The following address was delivered by the President:—

Before the real business of the meeting commences, 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 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 about 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 eyewitness. 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.

I.

SECOND REPORT
OF THE
COMMITTEE ON MESMERISM.

Committee :—W. F. BARRETT, F.R.S.E.; EDMUND GURNEY, M.A.*; FREDERIC W. H. MYERS, M.A.*; HENRY N. RIDLEY, M.A., F.L.S.; W. H. STONE, M.A., M.B.; GEORGE WYLD, M.D.; and FRANK PODMORE, B.A., *Hon. Secretary.*

The experiments recounted in the first Mesmeric Report took us up to a certain defined point. They were conclusive as to the production of a very singular physical and mental state in the "subjects" of them; but the majority of them contained no conclusive indication of any peculiar or specific influence, exercised by the organism or the will of one person on the organism or will of another. It has long been known that the fixation of the eyes in a particular manner which slightly strains their muscles, or a gentle monotonous stimulation such as that produced by passes, or even the monotonous ticking of a watch held to the ear, will throw the nervous system of a sensitive "subject" into an abnormal state, in which he is at the mercy of a "dominant idea," or of external suggestions and commands, and responds to them in an automatic way. Facts of this sort, and the theories of nervous change by which they may be accounted for, are classed together under the name of Hypnotism; what distinguishes Hypnotism, as a theory, from Mesmerism being just this—that the one denies and the other affirms the existence, in certain cases, of a *specific influence or effluence*, passing from the operator to the "subject." We should be the first to admit that the commoner of the phenomena popularly styled "mesmeric," those, for instance, associated with platform exhibitions, are for the most part quite explicable on the hypnotic hypothesis—in other words, that fixation of certain muscles, or gentle monotonous stimulation of one of the senses, is competent to produce a condition in which the normal control of ideas and choice of movements is to a great extent abolished. It is, however, worth while to remark that even the more ordinary exhibitions suggest points which have not been sufficiently noticed by those who reject all idea of any specific influence.

Firstly, the objection to the sufficiency of the hypnotic explanation, from the fact that some persons can operate successfully and others

* THE COUNCIL HOLDS ITSELF GENERALLY RESPONSIBLE FOR THE REPORTS OF ITS COMMITTEES. AT THE HEAD OF EACH REPORT THE NAMES OF THOSE MEMBERS OF COMMITTEE WHO ARE SPECIALLY RESPONSIBLE FOR ITS COMPOSITION ARE MARKED WITH ASTERISKS.

cannot, has never been realised or met. There are all varieties both of power and of susceptibility ; but if we take a casual group of persons, omitting those who are in no degree susceptible, we shall probably find that they be arranged somewhat in the following order. A and B can hypnotise *themselves*, either by the inward and upward squint, or, as it may sometimes seem, by mere imagination and expectancy. C and D cannot hypnotise themselves, but can be hypnotised by gentle rhythmical stroking at the hand of almost any one. E and F can be slowly and partially affected by almost any one, but immediately and thoroughly by a given "mesmerist," X. And the rest of the letters of the alphabet can be sent into the sleep-waking state by X, and by X alone, even though they may have no previous notion that X can affect them—nay, even though they are distinctly told that it is not X but Y who will be able to control them. In such a case—as we have ourselves seen—Y may be as Goliath and X as David in comparison, but the big man will not succeed in doing in an hour what the small man who has the specific gift will do in five minutes.*

Secondly : just as X alone can send these persons into the trance, so X alone can awake them out of it. It is very easy to take care that the subject shall have no previous notion that X alone will be able to wake him ; and, as a matter of fact, the most striking illustrations of this thesis are cases where every one present, mesmerist included, is new to mesmerism, and believes that any one who chooses can wake any "subject" up again. The typical case is somewhat as follows. A group of persons at an evening party begin to mesmerise each other in joke. One of the guests sends a schoolboy to sleep, and drives off, thinking nothing more about it. At the end of the evening the boy's parents try to wake him up. They cannot do so ! The boy begins to rave, and is worse when touched or spoken to. Next morning they send in alarm for the guest who has done the mischief. He succeeds in waking the boy, but the experiment is followed by a week of headache and depression.

This brings us to a *third* point, tending to shew the reality of the mesmeric influence, namely, the distress and even danger which sometimes follows on *cross-mesmerisation*—on passes, that is to say, made by Z upon a person whom X has already mesmerised, and over whom X may make passes as often as he likes with only a soothing result. In such a case, Z's passes or personal contact may very probably have no effect

* Nothing in Heidenhain's treatment of the subject is more unsatisfactory than his attempt to account for the existing differences in the power of producing the result by differences of temperature, moisture, and style of movement, in the several operators' hands. All that is needed, according to his own theory, is gentle monotonous stimulation. The number of hands in the world whose "moisture, temperature, and style of movement" are, or can be made, such as to allow of this sort of stimulation, are clearly innumerable ; and the fact of wholly exceptional operative powers is thus left quite unexplained.

whatever ; but in a specially sensitive "subject" they sometimes bring about a state of mental chaos, of alternating violence and bewilderment which, though it almost always subsides after a time, constitutes a risk against which experimenters in mesmerism must before all things be on their guard. To the reality of this singular state, whatever its cause, we can testify from personal experience. Now the "dominant idea," so far as it exists here, must be strong fear or dislike to all human beings except one ; but inasmuch as there has been nothing whatever to suggest such an idea to the "subject's" mind, its existence is not an explanation, but a fact which itself seems explicable only on the hypothesis of a special *rapport* established between the "subject" and his recognised controller.

And fourthly, passing from these general characteristics of the mesmeric state to more definite experiments, we may observe that even the rough platform exhibitions often present features which seem quite irrelevant to any theory of paralysis of the will, or subjection of the mind to a suggested idea. A boy, for instance, is told that he may have a sovereign if he can pick it up. He struggles to do so till the sweat runs down his face ; while his countenance, so far from being blankly acquiescent, is full of incredulity, resolution and rage. Sometimes he will succeed in doing what he is told he cannot do—he will wrench his flat palm away from the operator's flat palm after an apparently desperate struggle. Can we suppose that in these cases volitional power has been paralysed, or the nerve-functions normally associated with the desired acts inhibited, during all the time that the boy has been vehemently struggling to perform them ? The theory which covered the cases of the frog stroked into immobility, or the cock set staring at a chalk line, must be considerably stretched if it is to suffice us here. Or let us take a case in which the obvious effect is a *mental* one. A boy in a light state of trance is asked what is his name, and gives it ; he is at once asked again, and now (at the mesmerist's silent wish) he cannot remember it. It may be said that the idea that it is impossible to recall the name, though not virtually expressed, is suggested to him by the very nature of the experiment. But at any rate this idea is so far from being *dominant* in his mind that he will sit for half an hour hopefully struggling for the word, as may be proved by asking him from time to time what he is thinking about. It may be answered : "It is not needful that the suggested idea should *absorb* the mind, but only that the brain should have been thrown into such a state that particular centres or sets of connections can easily be made to suffer inhibition of their normal functions. All that is necessary is to inhibit the nerve-activities which normally accompany the boy's utterance of his name." But what, then, are we to take as the immediate cause of such inhibition ? Surely the

suggested idea that the action is *impossible*. But here the boy's conviction is that the action is *possible*; so that we shall have to conceive the inhibition as consequent on an idea which the boy at most imagines as present in *some one else's mind*, and which he persistently refuses to admit into *his own*. That is to say, we must credit with this singular inhibitory power an idea which is nevertheless unable to prevent its exact opposite from dominating consciousness. So that here again the inhibitory theory will have to be stretched to embrace facts almost directly opposite to those which it was originally started to explain.

Clearly, however, public exhibitions are very ill-suited for producing conviction; nor is the platform the place for delicate experimentation. We will therefore proceed to give a few samples of the more conclusive results, indicative of the specific mesmeric influence, which we have obtained in private. We hoped to have by this time added largely to their number; but have, unfortunately, been prevented from doing this by the illness of the operator whom we were employing.

Prominent among these are various phenomena belonging to the class of mesmeric *rapport*. Of the subdivisions of this class, the one most widely attested by previous observers is perhaps that of community of sensation between the operator and the "subject"; and to us the results obtained in this department are of special interest, owing to their bearing on those further phenomena of Thought-transference between persons in a normal condition, which have only quite lately obtained any degree of scientific recognition. Not, of course, that the two sorts of phenomena are by any means identical; but it may be hoped that the two inquiries will throw light on one another; and at any rate the *a priori* objection of *impossibility* to which the facts are exposed is the same in either case, and is satisfactorily disposed of by proof of the reality of either. We may observe that it is to experiments in *rapport* that the hypothesis of *collusion* seems specially appropriate; and it must be met by an accumulation of experiments with different "subjects." But fortunately the hypothesis has not, in the departments of Hypnotism and Mesmerism, the same plausibility as it had in relation to some of our experiments on Thought-transference, the "subjects" of which were in a normal state. For the peculiar condition of the mesmerised or hypnotised "subject" is one which, after a little experience, it is not easy to mistake; and the irrepressible honesty and directness of conduct which characterise it have been generally recognised by those who deny no less than by those who maintain the reality of the "mesmeric" agency.*

* For a case in which the hypothesis of a code was absolutely excluded by the fact that the investigator was himself the mesmeriser, see Professor Barrett's paper read before the British Association at Glasgow in 1876, and partly reprinted in the last number of our "Proceedings."

A series of experiments, illustrating one form of *rapport*—the community of sensation,—was included in our last Report. We are pursuing this branch of inquiry, but will defer a further account until a considerable number of cases have been collected and compared.

A much more distinctive sort of mesmeric sympathy may be found in the extraordinarily exalted susceptibility of the "subject" to sensory impressions received from the operator. As long as this merely takes the form of exalted sensibility to the operator's *voice*, combined as a rule with deafness to other voices, it no doubt may be and frequently has been explained in the old way, as due to the dominance of a single idea—the possession of the "subject's" mind by the idea of his operator's control making him abnormally wakeful and responsive to any sensible signs that can be recognised as issuing from *him*, and correspondingly inattentive to all others. Even so, the experiment may be so arranged as to bring out very clearly the abnormal *physical* state on which it was Braid's great merit to insist; for if the operator's voice and words be distinguished among a perfect Babel of other voices, the sensorium of the percipient must be at any rate in a most remarkable state, analogous, *e.g.*, to that of a person who should distinguish the flame of a candle held against the sun. But it seems impossible to carry on the "hypnotic" explanation in any way to cases where the sensory impression is not a spoken sentence, but the faintest whisper of a monosyllable. The individuality of voices (at any rate where there is no exceptional peculiarity in the pronunciation of consonants, such as a lisp) depends entirely on *timbre* and inflexion, which are produced by the vocal chords and by changes in the shape of the pharynx, and which have no place at all in a low whisper. It is easy for anyone to assure himself of this by shutting his eyes and getting a dozen of his acquaintances in turn faintly to whisper such a monosyllable as "Fred" in his hearing; he will find himself totally unable to identify the author of the sound. How far the case is otherwise with a mesmerised "subject" may be seen from the following experiments. Our former "subject," Fred Wells, being placed in a corner, with his back to the room, Mr. Smith and two of our own number kept whispering his name, "Fred," as softly as possible and at uncertain intervals; he in every case responded to Mr. Smith, and in no case to either of the others. Again, Mr. Smith took his place in a corner of the room, side by side with one of the observers; Wells, again in a tolerably deep state of trance, was seated in the opposite corner, in such a position that he could not have seen Mr. Smith even had his eyes been open and in their normal state; and one of the present reporters kept up a perpetual loud howling and clapping at the distance of an inch or two from his ear. Mr. Smith then at quite uncertain intervals, whispered the one syllable "Fred," so faintly as to be inaudible to the gentleman who was sitting in contact

with him, and who saw his lips move. Wells responded at once to every such whisper. This experiment was successfully repeated ten times. Mr. Smith, with his companion, then went into the adjoining dark room, where thick curtains separated him from the "subject," and again ten immediate responses were given to the whispered word, which at that distance would have been inaudible to an ordinary ear even if listened for in perfect silence, instead of amid unearthly bellowing. On being asked afterwards whether he had heard the bellow's voice, Wells replied that he had only heard Mr. Smith; but when the latter prepared him for being spoken to by the gentleman to whose loudest vocal efforts he had thus been impervious, and when that gentleman then addressed him in the gentlest tone, he at once complained loudly of the excessive noise.

A stranger phenomenon still, and one which takes us altogether out of the region of exalted sensibility, is the effect produced on the power of response by the unexpressed will of the operator. Our experiments on this head have been made on our friend, Mr. Sidney Beard. A list of twelve *Yeses* and *Noes* in arbitrary order was written by one of ourselves and put into Mr. Smith's hand, with directions that he should successively "will" the "subject" to respond or not to respond, in accordance with the order of the list. Mr. Beard having been previously put into the deep trance, and lying with closed eyes, a tuning fork was struck and held at his ear, with the question, "Do you hear?" which in this case was asked by one of ourselves, as the ordinary insensibility to other voices than those of the operator had not supervened. This was done twelve times with a completely successful result, the answer or the failure to answer corresponding in each case with the "yes" or "no" of the written list—that is to say, with the silently concentrated will of the mesmerist.*

These cases, it will be observed, however conclusive they may appear

* Similar trials on other occasions were equally successful; as also were trials where the tuning-fork was dispensed with, and the only sound was the question, "Do you hear?" asked by one of the observers. On these latter occasions, however, Mr. Smith was holding Mr. Beard's hand; and extreme adherents of the theory of "muscle-reading" might maintain that "yes" and "no" indications were given by unconscious variations of pressure. How completely unconscious the supposed "reader" was of any such sensible guidance will be evident from Mr. Beard's own account. "During the experiments of January 1, when Mr. Smith mesmerised me, I did not entirely lose consciousness at any time, but only experienced a sensation of total numbness in my limbs. When the trial as to whether I could hear sounds was made, I heard the sounds distinctly each time, but in a large number of instances I felt totally unable to acknowledge that I heard them. I seemed to know each time whether Mr. Smith wished me to say that I heard them; and as I had surrendered my will to his at the commencement of the experiment, I was unable to reassert my power of volition whilst under his influence."

as to mental influences acting otherwise than through recognised sensory channels, still do not drive us to suppose any special physical *effluence* or force as passing from the operator to the "subject." Such an effluence is indeed strongly suggested, as we have already seen, by the mode of producing or of putting a stop to the mesmeric state, taken in connection with the exceptional powers in that direction which certain individuals possess; but as far as the resulting phenomena go, it would be a conceivable hypothesis that the trance-condition is produced hypnotically, and not as any special effect of one organism on the other, but that, when once it is produced, a special mental influence can be brought to bear, analogous to ordinary Thought-transference, but differing therefrom in the striking fact that only one person is able to exercise it. Even so the heart of the mystery, the mental *rapport*, the problem why the one influential person should always be the operator, remains wholly unravelled; since no amount of supposed hypnotic submission to the operator's will could afford a solution to cases (like those just described) where there was nothing to suggest to the "subject" what that will at that particular moment was. But further experiments make it almost impossible to doubt the reality of some sort of special force or virtue, passing from one organism to the other, in the process of mesmerisation; and however vague at present may be our conceptions of the nature of this *physical rapport*, there is at any rate a satisfaction in being able to point to it as the basis or condition of the *mental*.

We find what seems at any rate a probable indication of such physical effluence in cases where the "subject" is allowed to remain in a perfectly normal condition, with the exception of *local* effects produced on him without contact, and without any possibility that the idea or expectation of them shall dominate his mind. Such an experiment is the following which in the first instance was suddenly improvised, and which we have repeated between thirty and forty times without a single failure. The "subject" was blindfolded and seated at a table, on which his ten fingers were spread out before him. A screen, formed of thick brown paper quadruply folded, was then placed in front of his body in such a way that it rested on his fore-arms and against his breast and head, extending far beyond him in all directions. On some occasions holes were made in the paper for his arm to pass through, so that the screen became a gigantic breastplate reaching high above his head. No one probably will deny the possibility of so arranging this simple apparatus as to make sure that the boy's fingers should be completely concealed from his sight, even apart from the blindfolding; and no one who witnessed the experiments found it possible to entertain the slightest doubt on this score. Two out of the ten fingers were then selected by one of the present reporters and silently pointed out to Mr. G. A. Smith, who then, standing beyond

the screen at a distance of some feet from the subject, proceeded to make extremely gentle passes over them. Care was taken to preserve such a distance between the tips of Mr. Smith's fingers and those which he was operating on as to preclude all chance of contact, or even of the production of a sensible current of air. The experimenters themselves were totally unable to detect any such current when similar slow passes were made over their own fingers, though their hands were decidedly less thick-skinned and more sensitive in the ordinary sense than those of the "subject;" but, to make assurance doubly sure, one of them as a rule kept making passes over two of the eight non-selected fingers, imitating Mr. Smith's pace and mode of action as completely as possible. It was even found possible to dispense altogether with movement, the mesmerist simply holding his fingers in a downward direction over those of the "subject;" but the results were obtained more quickly when passes were made. It is needless to say that Mr. Smith (whose genuinely scientific curiosity on the subject has led him throughout to welcome the most stringent tests and conditions) was under the closest observation during the whole experiment. After the passes had been continued for a minute or less, the two fingers proved to be perfectly stiff and insensible. The points of a sharp carving fork gently applied to one of the other fingers evoked the sort of start and protest that might have been expected; the same points might be plunged deep into the chosen two without producing a sign or a murmur. The insensibility being once proved, the stabs were on several occasions made with a violence which it required some nerve to apply, and which would have seemed barbarous to an ignorant bystander unless he had chanced to note at the same instant the smiling silence or easy chatter of the victim and on all occasions what was done was sufficient to produce in a normal finger, however pachydermatous, a most acute pang. The experiment was equally successful when varied by applying a lighted match to the more sensitive region surrounding the nail; but it was not thought well to repeat it often in this form, as we were unwilling to cause the "subject," even with his own consent, any sensible amount of subsequent inconvenience. It may possibly be suggested* that some organisations

* The only other objection that occurs to us is that it is possible here to suppose a case of *direct inhibition*—that, though the currents of air or changes of temperature produced by movements of the operator's hand were imperceptible to the "subject," they yet sufficed to set up a weak monotonous stimulation, whereby the power of response in the particular sensory centre was gradually annulled. But (1) other operators ought then to succeed; (2) the explanation does not extend to the cases where the operator's hand did not move; (3) the explanation is itself most violent, and contrary to all analogy. Heidenhain himself never suggests that the weak and monotonous stimulation which induces the hypnotic state can be so weak as not to reach the threshold of consciousness; and it seems incredible that such sub-liminal stimulation should suffice to bring about the local anaesthesia

are extremely impervious to pain; and that the youth, being warned of what was coming by the slight preliminary pricks on some of the fingers which retained their sensibility, was enabled to set his teeth, and to carry out the wholly inscrutable and useless project of enduring the agony when it came without complaint. Anticipating this objection, on a good many occasions after we had convinced ourselves of the genuineness of the phenomenon, the wielder of the fork or the match took care to *begin* with one of the mesmerised fingers. The assault then came, it will be observed, at a moment which it was impossible for the "subject" to foresee; and we know of no warrant for the assumption that an ordinary youth, who is sitting with relaxed limbs in quiet unconcern, would be able to control every sort of reflex start or twitch when a naked flame is suddenly applied to one of the most sensitive parts of his person. It is wise, however, to guard against even unwarranted assumptions; and we have accordingly repeated the experiment with other "subjects"—one of them a delicate woman, whose shrinking from pain was such that the merest touch of the point of the fork on one of her un-mesmerised fingers would cause a half-hysterical cry. The trials with her were fully as successful as those with the robust organisms; but were sooner discontinued, owing to the difficulty, in the case of very thin-skinned and delicate hands, of taking such measures as under ordinary conditions would cause severe pain without running the risk of subsequent annoyance or disfigurement.

The rigidity of the mesmerised fingers could be tested with, if possible, even more certainty than their insensibility, by simply telling the "subject," after a minute of mesmerisation, to close his or her fist; the selected digits in every case refused to bend with the others, and thus for the first time revealed to their possessor what particular pair it was that had been operated on. And opportunities sometimes presented themselves for testing this rigidity and want of motive power in an impromptu way. Thus it happened one night that the youth whose fingers were the subject of the experiments just described was lying in a very deep mesmeric sleep, with his head buried in a cushion and one hand extended and grasping the back of the sofa frame. One of the present reporters silently threw a screen over his head and body, leaving only his one hand exposed, and then beckoned to the mesmerist to approach and make a few noiseless passes over the hand.

which (when produced, as above described, without suggestion) is a far rarer phenomenon than the general hypnotic state. *Local and partial* inhibition of particular sensory centres, brought about by *unfelt* stimuli, while general volition and consciousness remain quite unimpaired, would at any rate, bear no relation whatever to the inhibition (as Heidenhain conceives it) of the *whole area* of volition and consciousness by a monotony of *felt* stimuli.

The screen was then removed, and the boy wakened by the usual clap and call. On endeavouring, however, to rise and leave the sofa, he found his hands tightly glued to the frame, nor did all his efforts avail to withdraw it until some reverse passes had restored it to animation.*

We have advisedly described the results described in the last two paragraphs as only a *probable* indication of a specific effluence. For we cannot pronounce it *impossible* that they may merely represent a special form of *Thought-transference*. If we admit that the operator's knowledge as to what particular finger he is operating on is an idea communicable by Thought-transference, and that such knowledge, when imparted to a "subject," might lead to paralysis of sensation in the finger to which his attention was thus directed, then it is not inconceivable that the same train of events might happen with the *omission* of the psychical element of the "subject's" knowledge. In other words, it is conceivable that some process of nervous induction, not from finger to finger but from brain to brain, might produce the insensibility, without excitation in the "subject's" brain of that particular activity which would correspond with a *conscious idea* of the particular finger. This hypothesis requires at any rate to be carefully tested.

The reality of the physical effluence is much more strongly suggested by the fact that, though emitted only from living bodies, it can be made to produce effects which inhere for some minutes in inorganic ones. An object which has been handled, or over which passes have been made, by a mesmerist, will be recognised and picked out of a number of similar objects by a person who is sensitive to that mesmerist's influence. This phenomenon is no doubt rare, but fortunately it is one which it is particularly easy to test. In the following case, for example, the "subject"—a gentleman with whom we have frequently experi-

* In connection with this experiment, we may quote the following passage from Professor Mayo's *Truths contained in Popular Superstitions*, 3rd edition, p. 155:—"A servant of mine, aged about twenty-five, was mesmerised by Lafontaine for a full half-hour, and, no effect appearing to be produced, I told him he might rise from the chair and leave us. On getting up he looked uneasy, and said his arms were numb. They were perfectly paralysed from the elbows downwards, and numb to the shoulders. This was the more satisfactory, that neither the man himself, nor Lafontaine, nor the four or five spectators expected this result. The operator triumphantly drew a pin and stuck it into the man's hand, which bled but had no feeling. Then, heedlessly, to shew it gave pain, Lafontaine stuck the pin into the man's thigh, whose flashing eye and half-suppressed growl denoted that the aggression would certainly have been returned by another, had the arm which should have done it not been really powerless. However, M. Lafontaine made peace with the man by restoring him the use and feeling of his arms. This was done by dusting them, as it were, by quick transverse motions of his extended hands. In five minutes nothing remained of the palsy but a slight stiffness, which gradually wore off in the course of the evening."

mented, and whose anxiety for complete tests has always been fully equal to our own—was engaged in conversation by one of our committee in a room on another floor during the time that the process of mesmerising the chosen object was going on. That process consisted merely of passes and occasional light touches, and was most carefully scrutinised throughout. When it was concluded, the mesmerist was taken into a third room by another member of the committee, and the “subject” was then introduced into the room where the mesmerised object lay among a number of others. This object had of course been selected by one of ourselves, and its position in relation to the others was generally changed after the mesmerist had left the room and before the subject entered it; but this was a superfluity of precaution, as the two were never for an instant within sight or hearing of one another. In the first experiment a cardboard box, in the second a pocket-book, selected from a small group of ten small objects (including, *e.g.*, a lump of wax, a pen-wiper, a paper-knife, &c.), was mesmerised and was successfully picked out by the “subject” after he had held each of the objects for a moment in his hand. We have found it best to avoid using coins and metallic substances, as our results with them, though sometimes startlingly successful, have been uncertain; and also they are so easily warmed even by very slight contact with the hand, that it is necessary in their case to take special measures for insuring equality of temperature between the object operated on and the others. After the second trial we eliminated the uncertainty as to results which might arise from the use of a variety of substances, and employed ten small volumes, resembling each other as closely as any two peas. Any one of these that we selected having been operated on, the “subject” identified the particular volume four times in succession the instant that he touched it, and again on a fifth occasion after taking up each of the ten in turn. The sense of *smell* was in no case resorted to; and to avoid all chance of Thought-transference or of unconscious indications, we were careful that the particular member or members of the committee who had selected the volume, and knew which of the ten it was, should avoid watching this part of the proceedings. In the last trial (as well as in other successful experiments of the same kind) no contact whatever had taken place between the hands of the mesmerist and the book. That the very slight contact which was permitted in the preceding trials could produce such a change of temperature in a cardboard box or the binding of a book as would be sensible to human hands a minute afterwards, seems a violent assumption; but we took the precaution, during the mesmerising process, of ourselves giving a similar amount of handling to some of the nine objects which were not being operated on. The chances against succeeding *by accident* in seven consecutive trials of this kind are ten millions to one; and the experiment may therefore, we

think, be considered a tolerably crucial one. The "subject" described his sensation on taking up the right object as "a kind of mild tingling." This result may be compared with Esdaile's most striking account of the effect of "mesmerised water" on his Hindoo patients. Our own experiments on the power of a sensitive "subject" to detect water over which mesmeric passes had been made, have been successful to the extent of giving results against which, on the hypothesis of accidental occurrence, the chances were hundreds to one: but in these matters it is perhaps a justifiable demand that the adverse chances shall be reckoned by millions.

We have been here concerned with the reality of an influence other than those which any form of *hypnotic* theory has recognised; and have defined the particular sorts of experiment in which such an influence may be most clearly traced. But though the experiments above recorded were made under accurate scientific conditions, and their results therefore seem to us to constitute a strong *prima facie* case, we are fully aware that their number must be very largely increased before we can hope for any wide scientific acceptance of a theory of *mesmeric* influence; and the chief object which we have had in view in the present Report is to indicate lines of inquiry, and to emphasise the importance of vigorously following them up. For this purpose what has been said will, we hope, prove sufficient. Future reports will necessarily be drawn up in a less popular style, and will comprise more formal and detailed statements of the experimental work.

II.

RECORD OF EXPERIMENTS
IN
THOUGHT-TRANSFERENCE,*At Liverpool,*

By MALCOLM GUTHRIE, J.P., and JAMES BIRCHALL, Honorary Secretary
of the Liverpool Literary and Philosophical Society.

The following is a record of all the experiments which have been made with the two "subjects" employed, from the commencement of anything like systematic trials at the beginning of April, 1883, till the end of May, and again from the end of September till the middle of November; with the exception (1) of a series in which some members of the Thought-transference Committee of the S.P.R. took part; and (2) of experiments in the reproduction of diagrams,—which will be separately recorded. Some of the experiments, as will be seen, were failures. Others, such as the "willing" of particular actions, were made not so much for scientific purposes as for the sake of variety, and to keep the "subjects" amused; and we do not present these as evidence of "Thought-transference," since the possibility of unconscious indications was not excluded. But there are a large number of complete successes under conditions when that possibility *was* excluded. And the cumulative force of the *whole series* of trials will scarcely be denied by anyone who is willing to accept our assurance of their complete genuineness. The "subjects" were two young ladies whom I have known for many years; and I am thoroughly satisfied as to their *bona fides*, and as to the thoroughly trustworthy character of the experiments.

I shall hope to justify this confidence in a further report.* For the present it must suffice to say that, almost all the experiments *with objects* were performed under strict conditions—the "subjects," being blindfolded,

* A description by Mr. Guthrie of the circumstances in which these experiments originated, and a fuller account of the conditions under which they were conducted, as well as the experiments here omitted, will be included in the next number of the Proceedings. That number will also contain many specimens of diagrams which the "subjects" have reproduced by means of a transferred impression. These results differ from those already obtained and published by the Committee on Thought-transference, in that, in many cases, the diagram to be reproduced was only seen by a *single person*—to wit, one or other of the gentlemen who were conducting the experiments.

and the objects placed out of the range of their vision, even had they not been thus incapacitated for observation ; and silence being preserved during the progress of the experiments. In other cases the precautions were not so strict ; but as the rule has been to record *every* incident, without any exception whatever, the full record is presented.

MALCOLM GUTHRIE.

My attention, throughout the whole series of experiments, has been mainly directed to the strict observance of the necessary conditions. As far as I am able to judge, the experiments here recorded are unquestionably genuine. The explanation of them I leave to those who feel competent to undertake it.

JAS. BIRCHALL.

N.B.—When no contact was used, all who were present (except the “subject”) were concentrating their attention on the object, and all, therefore, are described as the collective “agent.” The words, “all present,” under the heading of “agent,” thus imply absence of contact. When contact was used, all present were, as a rule, similarly concentrating their attention ; but here, for convenience, the *one* person who was in contact with the “subject” is described as “agent.” For the first half of the experiments, the contact, when employed, consisted in clasping hands ; for the second half it consisted merely in laying a hand lightly on the back of the “subject’s” hand. But it soon became pretty obvious that the contact had little, if any, direct effect ; and the reason why it seemed well to continue using it at the commencement of a series of experiments, was merely to put the “subjects” (who possibly had some faith in it) at their ease. It should be added that the results were spoken, not written, by the “subjects.”

April 4, 1883.

Present : Mr. Guthrie, Mr. Birchall, Miss R., Miss R—d, Miss C., and Miss J.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Miss J.	Miss R.	Figures 17 on a card, containing Nos. 1-31.	“Sixteen.”
do.	do.	20816 on bank note	“4” . . . “2” ; remaining figures not seen.
do.	do.	A large spot of scarlet silk on black satin.	“A round red spot.”
do.	do.	A triangle of blue silk on black satin	“The colour is blue . . . like a diamond . . . but it isn’t a diamond. Like as if it were cut off. Is pointed at one end. The rest of the shape I cannot see.”

April 7, 1883.

Present : Miss R., Miss R—d, Miss J., Miss E., and Miss C.

(First experiments without contact, reported by Miss C.)

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	A half-crown.	"Like a flat button — bright . . . no particular colour."
do.	do.	Four of spades.	"A card . . . four of clubs." Said she did not know difference between spades and clubs afterwards.
do.	do.	An egg.	"Looks remarkably like an egg."
do.	do.	A penholder, with thimble inverted on the end.	"A column, with something bell-shaped turned down on it."
do.	do.	A small gold eardrop.	"Round and bright . . . yellow . . . with loop to hang it by."

April 9, 1883.

Present : Mr. Guthrie, Mr. Birchall, Miss R., Miss R—d, Miss J., Miss E., and Miss C.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	A gold cross.	"It is yellow . . . it is a cross."
do.	do.	A red ivory chess knight.	. . . It is red . . . broad at the bottom . . . then very narrow . . . then broad again at the top. . . It is a chessman." Asked to name the piece said she did not know the names of the pieces.
do.	do. Mr. B. in this experiment turned the percipient's face to the wall, and away from the rest.	A half-crown held up by Mr. B. and taken out of his pocket after he had placed the percipient as described.	"It is round . . . bright . . . no particular colour . . . silver . . . it is a piece of money . . . larger than a shilling, but not as large as . . ." The percipient was unable to say more.
do.	do.	A diamond of pink silk on black satin	"Light pink . . . cannot make out the shape . . . seems moving about." N.B. The object was held somewhat unsteadily by Mr. G.

April 13, 1883.

Present : Miss R., Miss R—d, Miss J., and Miss C.

(Reported by Miss C.)

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	A leaf out of a little square book—yellow paper.	"Bright yellow square."
do.	do.	A key.	"A little tiny thing, with a ring at one end and a little flag at the other like a toy flag." Urged to name it, replied, "It is very like a key."

April 14, 1883.

Present : Mr. Guthrie, Mr. Birchall, Dr. Carter, Mr. Steel, Miss R., Miss R—d, Miss J., Miss E., and Miss C.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Miss R—d.	Miss R.	A horseshoe shape of black silk on white satin.	No answer.
Miss R.	Miss E.	Word "Via" taken letter by letter.	"V" (at the first answer) . . . "I" (at the second answer) . . . "A" (at the second answer).
All present.	Miss R.	A large quarto book bound in red cloth	Colour named correctly, but not the shape.
Miss R—d.	do.	A key.	"A key." Answer given instantly.
do.	do.	Mr. B.'s watch held at some little distance behind the percipient.	"Is it bright . . . round . . . is it a button?"
Mr. Birchall.	do.		The percipient accurately localised three pains in the agent. Two imaginary (1) in the little toe of the right foot, and in the left eye and temple. A wooden letter-clip being fixed on Mr. B.'s left little finger was described as "a grip," but the percipient placed it on the left thumb.

April 20, 1883.

Present: Mr. Guthrie, Mr. Steel, Mr. Birchall, and the ladies before-mentioned.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Miss E.	Miss R.	A square of pink silk on black satin.	"Pink . . . square." Answered almost instantly.
do.	do.	A ring of white silk on black satin.	"Can't see it."
Miss R.	Miss E.	Word, R E S, letter by letter.	Each letter was named correctly as it was set up on the first trial.
do.	do.	Letter Q.	"Q," first answer.
do.	do.	Letter F.	"F," first answer.
All present.	Miss R.	A gilt cross held by Mr. G. behind the percipient.	"Is it a cross?" Asked which way it was held—the percipient replied, "The right way," which was correct.
do.	do.	A yellow paper knife.	"Yellow . . . is it a feather? . . . It looks more like a knife with a thin handle."
do.	do.	Mr. Steel's Exchange pass ticket (similar to a first-class railway contract ticket), maroon coloured leather cover.	"Is it square? . . . longer one way than the other . . . a dark reddish colour."
do.	do.	A pair of scissors, standing open and upright.	"Is it silver . . . No—it is steel . . . It is a pair of scissors standing upright."

April 25, 1883.

Present: Mr. Guthrie, Mr. Birchall, Principal Rendall, M.A., Mr. E. Davies, F.C.S.; and Miss R—d, Miss J., Miss E., and Miss R.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Miss R.	Miss E.	Word "Puella," letter by letter.	"Q" named first . . . then "P." The other letters beginning with the U named correctly at the first answer.
All present.	Miss R.	A diamond of blue silk on black satin	"Is it a diamond?"
do.	do.	A dark green circle of silk on black satin.	"Is it dark green? Can't see the shape."

April 25, 1883 (continued).

Present : Mr. Guthrie, Mr. Birchall, Principal Bendall, M.A., Mr. E. Davies, F.C.S.;
and Miss R—d, Miss J., Miss E., and Miss R.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	A terra-cotta meerschau pipe, glazed at the mouthpiece; the stem joined to the bowl by a carved bird's claw.	"Is it yellow? . . . does not seem to be all yellow . . . only one part of it . . . Can't see the shape well . . . all confused . . . Do not know what it is . . . seem to be a lot of stems . . . It looks like this" (tracing an imaginary curve in the air), "with claws" (the percipient here shaped her fingers like claws).
do.	do.	A small toy dog, coloured light brown, with tail extended, and in the act of leaping.	"Is it green? . . . I can see something, like with a lot of branches . . . Can't count them—look too many—like a long stem—so—" (tracing a horizontal line in the air) "with things down" (tracing lines downward). "Looks to be a lighter colour now . . . not green as at first, . . . but now it looks like an animal. Can't see any more."
do.	do.	A dark crimson apple, brought in by Mr. B., who had been out for some objects that had not been previously thought of.	"Is it round? . . . a dark red shade . . . like a knob off a drawer. . . It is an apple."
do.	do.	An orange.	"It is not another apple . . . it is an orange."
do.	do.	An electro-plate teaspoon.	"Is it very bright . . . either steel or silver . . . is it a spoon?"
Miss E.	do.	A bright steel door key.	"It is something very bright— and round . . . Is it a brooch? . . . Silver, I think."
do.	do.	A red ivory ball.	"Is it yellow?"
Mr. B.	Miss E.	A cross of yellow silk on black satin	No answer.
Miss R.	do.	The same.	"It looks light . . . yellow like. Seems like a lot of rings . . . Is it round? . . . Can't see any shape."

April 25, 1883 (continued).

Present: Mr. Guthrie, Mr. Birohall, Principal Rendall, M.A., Mr. E. Davies, F.C.S.; and Miss R—d, Miss J., Miss E., and Miss R.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Miss R.	Miss E.	"Tom." All the letters fixed up to be read at once.	"Are there three letters? . . . one is an O . . . one is a 'stroky' letter . . . Is it T . . . oh! it's Tom."
Ncne.	Miss R. placed in the next room with Mr. B.	A gold watch. Miss R. was to describe this from the next room—Mr. B. taking her description down.	A failure.
Miss R—d.	Miss R.	A jug, cut out in white cardboard.	"Cannot see any colour . . . looks all light . . . Is it a cup? There is a handle . . . oh, it is a jug."
do.	do.	A five-barred gate, cut out in cardboard.	"Same colour as the last . . . seem to be lines across . . . do not know what it is . . . seems to be nothing but lines."
do.	do.	An electro plate egg cup.	"Is it a narrow stem—going on till it gets wide? . . . Is it a wine glass?—Seems bright . . . seems to be silver."
do.	do.	A toy cat, white, with black stripes; radiating from the back, which was darkly shaded.	"Is it very dark? . . . Is it a card? . . . White all round . . . like with a black centre . . . Seems to be crimped in and out. Is there more than one colour in the centre? Do not know what it is—can't see any shape at all."
All present.	do.	Six of diamonds.	"Is it yellow?"
Miss R—d.	do.	Same.	"Is it square? . . . A card. Red . . . cannot tell how many spots. . . seem to be two or three, one over the other . . . Diamonds. Cannot see the number. Card seems moving about."
All present.	do.	A white toy bird.	"Is it white? . . . Seems to have no shape." Then placed in contact, first with Principal Rendall, second with Miss R—d, but no nearer approach made. The percipient had now been subject to a very long examination.

May 9, 1883.

Present : Mr. Guthrie, Mr. Birchall, Miss E., Miss R., Miss J., Miss R.—d, and Miss C.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Miss R.—d.	Miss R.	A white ivory chess castle.	Reply came quickly, "Is it white?" (Then after a longer interval) "Is it square?—little longer than wide." (Another interval.) "No—can't tell what it is . . . there's something long and white." (Another interval.) "No—I don't think I see it now." N.B.—When shewn the object, said she had not seen it.
All present.	do.	The percipient having left the room, it was arranged that all should think, with closed eyes, of an orange.	No picture was formed by Miss R., who was not blindfolded, but simply sat in the middle of the room, and tried to form the image of the object thought of by the rest.
do.	do.	A gilt cross thought of as above.	After a brief interval, Miss R., as above, said, "Is it a person? A face?" Then placed in contact with Miss E. said, "Can see nothing but a face . . . the eyes and the features distinctly."
do.	do.	A purse or small bag with steel mountings and steel handle. First shewn to the company, and then placed out of sight and thought of.	"Is it something not quite square? A little longer than? . . . Something bright in the middle. Is it a purse? There's something very bright at the top . . . Has it anything else over it? Don't know what this is . . . whether it belongs to the purse . . . I've lost it . . . Is it like a bag?"
do.	Miss E.	Word "Cordis." The letters only of the word were placed before the percipient, in disorder—she being required to form the word, while the company thought of it.	At the first moment Miss E. placed the letters in order—except I, when she seemed puzzled, and gradually lost trace of the word.

May 9, 1883 (continued).

Present : Mr. Guthrie, Mr. Birchall, Miss E., Miss R., Miss J., Miss R—d, and Miss C.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss E.	"Vogel," as above.	Failed.
do.	do.	"Dot," only thought of by the company; Miss E., blindfold, being required to write the word.	At first thought the word was "Company," which was in her head then. "Is first letter D?" (Told it was right, and to think of the next letter.) "Not I, is it?" (No.) "Can't see anything else. I can't do anything more."
do.	Miss R.	An oval gold locket, with diagonal band. Object first shewn—then only thought of. Miss R. absent during arrangements.	"Is it a light colour?" (Mr. G.: "That will do to begin with.") "Is it long and narrow?" (Mr. G.: "Will leave you to go on without saying anything—will only think of it intently.") "Looks to me something long and bright—like a knife." (After a time contact with Miss E. was proposed and then Miss R. continued.) "Are you all thinking? At first it looked like a knife. Now it looks round—like a lot of rings." (Miss R—d. placed in contact also with Miss E.) "Now I've got it at last. It's a sand glass."
do.	do.	The company, during Miss R.'s absence, arranged to will that she should take a locket out of Miss E.'s pocket and give it to Mr. G.	Did not succeed at first. The locket was then placed on Miss E. so that all could see it (except, of course, Miss R. who was blindfolded.) After a few moments Miss R took the locket and gave it to Mr. G., putting it into his side coat pocket. Miss R. could give no explanation why she failed to remove the locket when out of sight. The locket was in Miss E.'s jacket pocket and to get it Miss R. would have had to stoop. Said she did feel a strong desire to bend or stoop, and felt a chair, as if she were desirous to sit down.

May 9, 1883 (continued).

Present: Mr. Guthrie, Mr. Birchall, Miss E., Miss R., Miss J., Miss R—d, and Miss C.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	To remove Mr. B.'s spectacles and place them on Miss E. The company willing this.	A decided success. Miss R., as soon as she re-entered the room, advanced slowly across and touching Mr. B. quietly removed the glasses from his eyes, and handed them to Miss E. on the opposite side of the room.

May 16, 1883.

Present: Mr. Guthrie, Mr. Birchall, Miss C., Miss R—d, Miss E., Miss R., and Miss J.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss E.	A triangle of blue silk on black satin, thrown over the back of chair in front of percipient.	"Blue, is it? Rather dark . . . looks like . . . straight at the bottom and going up like that" (shewing two converging lines in the air).
do.	do.	A bright yellow oblong of silk on same. N.B.—A fray of yellow threads hung from the silk shape.	"Seems brighter than the other . . . gold like . . . Is it a yellow? . . . Canary colour" (Mr. G.: "Quite right—now the shape?") "Is it square? Yet it looks a shade longer this way" (pointing horizontally) "than the other." (Mr. G. here asked Miss E. if she could see anything else about it. Replied: "Yes . . . something bright . . . a pin at the corner." (N.B.—The fray of threads was most conspicuous and was expected to be seen.)
do.	Miss R.	A pale blue feather.	"Is it pale? It looks like a leaf; but it can't be a leaf . . . looks like a feather curled. Is it a feather?"

May 16, 1883 (continued).

Present: Mr. Guthrie, Mr. Birchall, Miss C., Miss R—d, Miss E., Miss R., and Miss J.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss E.	An artificial Marguerite daisy, behind percipient, with three stalks hanging down.	"Don't see any colour . . . Looks white . . . like a white O; black in the middle. Is the middle raised a little bit? . . . Doesn't look like a dog, but seems to have branches. It's like a flower. Centre seems dark . . . might be brown . . . might be one of Miss R.'s daisies." (Asked how many branches, said, "Three.")
do	do.	Five of spades. Thought of only by the company, and not seen.	After a brief space, Miss E. seemed unable to see anything, when Mr. G. observed it was a card that was thought of, and Miss E. immediately replied: "I was just going to ask if it was a card. I thought it was a card when you told the company to think of the object as a whole." Finally gave it up, saying she would not be able to get it. Same object tried a second time, on same conditions. Miss E. simply asked, "Is it a face?" <i>Note.</i> —When the object has not been first shewn, but is only thought of, success seems to depend upon the vividness of each person's mental picture.
do.	do.	Three of diamonds, previously shewn for a moment to the company only.	"Is it an alphabet letter?" (Mr. G.: "If it does not come to you, don't keep it on too long. It's a card again.") Another pause, after which Miss E. said, "I think I shall have to give it up."
do.	Miss R.	A name thought of — "Bacon," as shewn over shop-door in Bold Street.	"Is it a word of six letters?" ("Say the word as a whole—not by letters.") "Can see a word of about six letters, but it is not very distinct. No—I don't think I'll get it." N.B.—It afterwards appeared that some of the "agents" had thought of the name as printed on bills, others as gilt letters on a black ground, as over the windows.

May 16, 1883 (continued).

Present : Mr. Guthrie, Mr. Birchall, Miss C., Miss R—d, Miss E., Miss R., and Miss J.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	"Adam." Each thinker requested to pronounce it in imagination.	"Something with an M."
do.	do.	Proverb, "Time flies." This was only thought of; but a proverb was openly named as the subject of thought.	"Has it only two words? Is it 'Time flies'?" The answer came with almost marvellous quickness—on the instant nearly.
do.	do.	"How doth the little busy bee."	} Both failures.
do.	do.	Nil desperandum.	

For the next experiment an historical scene was proposed; and it was agreed to think of "Queen Elizabeth walking"—with an event to follow. The event intended by Mr. Guthrie was Queen Elizabeth, surrounded by her courtiers, walking to her barge. Coming to a muddy place she hesitates, and Walter Raleigh steps forward and spreads his cloak for her to tread upon. These details were not given by Mr. G. to the other thinkers. All that was done was to write the short sentence given above on a slip of paper, which Mr. G. held in his hand as he went round the company. It appeared, however, on inquiry afterwards, that all surmised what was coming, and thought of the full scene. There were two trials. At the first trial, Miss R., without contact, said: "The letter M; something moving backwards and forwards, like a lot of people walking." (Mr. G.: "Distinguish one of them.") "Can't see one . . . letter M distinctly like two archways." In contact with Miss R—d she said, "A lot of small faces moving about . . . can't distinguish any one in particular." At the second trial, Miss R. said, "I see two archways. I see a lot of people. Oh! it is a picture. It is Queen Elizabeth walking from her palace to the barge; and Sir Walter Raleigh spreads his cloak for her to walk upon."

May 23, 1883.

The record of this meeting has been lost. Professor Barrett, the Rev. E. H. Sugden (Bradford), Mr. Guthrie, and Mr. Birchall were present. The experiments were nearly all failures; but after the "subjects" (Miss R. and Miss E.) had become familiarised with the presence of the strangers by some pin-finding experiments of Mr. Sugden's, their capacity improved. The evening, however, had become so advanced that it was time to go home before much had been accomplished.

May 30, 1883.

Present : Mr. Guthrie, Mr. Birchall, Miss R—d, and Miss R.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	A child's toy, brightly coloured red, yellow, and blue, and moving up and down on a stick, by means of which the arms and legs were alternately drawn together and separated.	Miss R. said : " I see red and yellow, and it is darker at one end than the other. It is like a flag moving about . . . it is moving . . . now it is opening and shutting like a pair of scissors."

In another experiment, it was agreed to think of a scene, and Miss R. was requested to leave the room. In her absence, it was decided to think of Cinderella, the Prince kneeling before her, trying on the glass slipper. On Miss R.'s return, she was blindfolded and isolated. Presently she appeared to be very much amused at something, and laughed, but could not be induced to tell what she saw. After protracted waiting, she would not say anything, and other experiments were proceeded with. Afterwards, the experiment was renewed, Mr. B. kneeling down before one of the ladies, to represent the scene. Miss R. again displayed much amusement, and finally asked, " Is it Cinderella ? " She was then asked what she had seen, and replied, " I saw a little girl in rags sweeping up the hearth, and the fairy godmother looking in at the door." Asked if this was what she saw before, said, " Yes, but I did not know who it was." Asked why she did not tell us what she saw, she said, " I could not suppose you would think of any picture like that." When told of the actual picture thought of, she said she had no idea of it. The picture she had described was very distinct ;—she saw the little girl sweeping up the hearth, and the old woman looking in at the door, but she did not know who they were.

As it was not convenient to carry on the experiments during the summer, no more sittings were held till the end of August. The young ladies reported that they did not try any further experiments among themselves. The first meeting in the autumn was held as follows :—

August 30, 1883.

Present : Mr. Guthrie, Miss R—d, Miss J., Miss R., and Miss E.

There was not the usual amount of interest taken by any of the persons present, and the experiments were nearly all failures. Some experiments on the " transmission of tastes " were, however, successful.

One incident is especially noteworthy. An outline in white paper of a teapot was shewn on a black ground. Miss R. said, " I see a white ground with something dark and long and indistinct in the middle of it. Oh ! there is a line of yellow all round it. It is square, longer one way than the other," and (then in a puzzled manner) " It can't be a window." Half way through the description Mr. G. noticed that she was describing a gold-framed and glazed fashion plate, a little distance above the object, and he removed the object.

September 26, 1883.

Present : Mr. Guthrie, Miss R—d, Miss C., Miss R., and Miss E.

A number of experiments were tried. There were more successes than on the 30th August, but still a great many failures. First the distinguishing of shades of colours was tried. Some of them were described with great accuracy, but as they were all selected on account of their peculiar shades, in order to test accuracy of colour perception beyond the mere naming of the vivid primary colours, the

descriptions might or might not be considered accurate. Further, the colours having been selected by daylight, did not look the same by gaslight, and the descriptions given under such circumstances were not applicable when seen by daylight. It was also thought that the colours of other objects in the room might mingle with the colour thought of, in the way of colour composition, and that the various "willers" might thus see the colours differently. These experiments were abandoned, after taking up a good deal of time.

Mr. Guthrie then tried the reception of pains, but failed. In contact with Miss R. (blindfolded) he tried to convey to her by concentration of thought and silent movement of the lips the name "Peter" but failed. In the same contact Mr. G. then directed Miss R. to do as he did, and moving his right (and disengaged) arm, Miss R. made a fair imitation of the movement.

In the same experiment without contact, Mr. G. standing behind Miss R., moved his closed fists round each other. Miss R. did the same in a faint, undecided manner.

A taste experiment was next tried. In one room Miss C. reported that Miss R., in contact with Miss R—d, who had carraway seeds in her mouth, said, "I taste biscuits—something in biscuits—it tastes of carraway seeds."

Similarly, Mr. G. being in contact with Miss E. in another room, the latter said, "I taste something sour. Now it tastes like spice. . . . Is it cloves? . . . Is it carraway seeds?" Mr. G. waited a short time to see if anything more would come, but Miss E., getting tired, said, "Oh, I can taste nothing else."

Miss E. said she would like to try the Bank note experiment. Mr. G. accordingly undertook to think of five successive numbers. Without writing the figures down, he took Miss E.'s hand and thought of 3. The subject said, "Is it three?" After recording this Mr. G. pictured to himself the figure 7. The answer was "Is it 1?" No! "Then it is 7." After recording this Mr. G. pictured 6. The answer was "Is it 4?" No! "Is it 6?" Yes. Mr. G. felt his own power of concentration fail, the strain having been very severe. He endeavoured to form a mental picture of 8, but it would not come. Miss E. said, "I see a blank—is it 0?" No! "Is it 1?" No! "Is it 4?" No! This was evidently guessing, and the experiment stopped. Having made the record Mr. G. thought of 1, and the reply was "Is it 4?"

Mr. G. then tried the same experiment with Miss R., but she saw nothing.

October 3, 1883.

Present: Mr. Guthrie, Mr. Birchall, Mr. R. C. Johnson, Miss R., Miss E., and Miss R—d.

Miss R. blindfolded and in contact with Mr. B. Mr. G. pinched the forefinger of Mr. B.'s left hand with a small pair of pincers. No perception.

Mr. B., still in contact with Miss R., imagined a neuralgic pain on the left cheek and temple. Answer: "I feel a pain down the left side of my face."

Mr. G. in contact with Miss R. and Miss E., both blindfolded. Mr. G. had previously left the room and put some ground coffee in his mouth. Answer from Miss E.: "Something hot, like a kind of spice."

Then, Mr. G., being in sole contact with Miss R., the latter said, "Is it a kind of biscuit? I'm sure it is either flour or oatmeal. It tastes between a biscuit and oatmeal and spice—like a dry biscuit. Still all the time I get that taste." Mr. G. again left the room and took salt, and on re-entering the room jokingly observed that he was going to give Miss E. some poison. Miss E. in contact with Mr. G. and Miss R—d. She hesitated to answer, because of the above remark, and, after contact was broken, answered almost immediately, "Salt."

Miss E. seated apart in a chair and blindfolded. The letter N on a square white card, placed on the back of the cheval glass behind her. "J, is it? I don't see anything at all."

Miss R. alone, in the chair, blindfolded. A circle of scarlet satin on white ground. "I can see a lot of light—white, I think it is—don't know what it is. There seems to be something in the centre—don't know what it is. Seems to be such a lot of white." (Mr. G.: "Yes, that is all right. Now tell us what is in the centre?") Contact being suggested, Mr. G. took Miss R.'s hand. "Is there something pink in the centre—does it go across?" (Pointing horizontally, not clear as to shape.)

October 3, 1883 (continued).

Present: Mr. Guthrie, Mr. Birchall, Mr. R. C. Johnson, Miss R—d, Miss R., and Miss E.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	Mr. G.'s gold watch, suspended by a hair or silk guard on the face of the same white ground—the back of the watch fronting.	"I still see a lot of white—and something hanging . . . looks like a letter . . . something of the shape of an A . . . looks like a locket or a watch." N.B.—The guard of the watch and the watch itself hung against the white surface, thus— <div style="text-align: center; border: 1px solid black; padding: 2px;"> V O </div>
do.	do.	Letter L.	"Is it a letter? L."
do.	do.	Letter Q.	"It is either an O or a Q."
do.	do.	A knife, with the three blades open.	"Is it something this way?" (tracing horizontally.) "Is it a knife? Open . . . pointing up . . . three blades."
do.	do.	One of the framed and glazed fashion pictures. A lady in full costume. Frame, black and gold.	"Can't see . . . something white . . . something in the middle . . . with a lot of colours . . . Is there anything dark all round the edge? . . . Seems like a black line . . . and then a white . . . with something in the middle . . . Can't see distinctly what is in the middle . . . There's more than one colour . . . seems to be a lot down at the bottom . . . then seems to go up narrower . . . No . . . I don't see it a bit distinctly." (Mr. G. now placed himself in contact.) "Is there anything written at the top? . . . Looks to me something like a picture, but I can't tell what it is."
do.	Miss E.	Letter B.	"A letter, is it? I see B." N.B.—Was not at all aware what object would be presented— <i>i.e.</i> , the <i>kind</i> of object . . . she asked, but was not informed.
do.	do.	Letters S O.	"Are there two letters? . . . one looks like an O . . . another T" (this last only suggestively, as if she were thinking aloud). "I see the O, but the other is not so distinct . . . is it S? I think the S is first."

October 3, 1883 (continued).

Present : Mr. Guthrie, Mr. Birchall, Mr. R. C. Johnson, Miss R., Miss E., and Miss R—d.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss E.	Letters G D U.	"Seem to be three letters . . . G . . . is one D? Is the next letter V? . . . No—can't see the other letter—got mixed . . . U!" Asked then to take a view of all the letters in a group, answered : "Is one letter over the others? . . . G—D is the next letter."
do.	do.	A key shewn to the company in the absence of the percipient, who left the room in charge of Mr. J., and returned with him blindfolded. The object was withdrawn from observation on her return.	"A key, is it?"
do.	do.	A plain gold cross thought of, but the object not under observation. N.B.—The cross was not there in fact.	"Is it a gold cross?"
do.	Miss R.	Mr. J.'s gold chain and pendant (only thought of, not seen).	"Is it a chain . . . a watch chain hanging from a pocket; with a little pendant at the end of it?"
do.	do.	A pine apple, with the tuft of leaves at the top. Simply imagined (only thought of, not seen).	"No idea . . . can't see." Then when about to give up, and being asked whether she wished to give it up, replied, quickly : "Is it a fruit? . . . I was thinking of a pine apple."

October 10, 1883.

Present: Mr. Guthrie, Mr. Birchall, Miss R—d, Miss R., and Miss E. Mr. R. C. Johnson also present at the last experiment of this sitting.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss E.	Letter A fixed upon cheval glass frame behind her.	"Is it a cross? . . . is it T? . . . L . . . Oh! I saw a white L."
do.	do.	Letter C.	(In about thirty seconds) answered "C."
do.	Miss R.	A black anchor on a small white card about 2½ in. by 2 in., placed behind the subject on the back of the glass frame.	"Are there two letters? . . Can't see anything distinctly." (After a few seconds, decidedly) "No!"
do.	do.	The five of clubs.	"Is there anything red about it? Can't see anything to-night as I usually do."

[It was at this period that the very successful experiments in the reproduction of diagrams were commenced, a full description of which is deferred to the next number of the Proceedings.]

October 24, 1883.

Present: Mr. Birchall, Mr. Guthrie, Mr. Johnson, with Miss R—d and the two subjects.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Mr. G. (others were not attending to the object.)	Miss E.	No. 8 imagined.	"No. 8."
do.	do.	No. 2 imagined.	"No. 2."
do.	do.	Letter F imagined.	"D"—then "J;" but Mr. G. said that he kept changing the letter involuntarily into M and then back again to F
do.	do.	Letter W imagined.	Answer: "S."
do.	Miss R.	"Patrick" imagined.	"Is it Peter or Patrick?" N.B.—The answer was given in less than a minute.

October 24, 1883 (continued).

Present : Mr. Birchall, Mr. Guthrie, Mr. Johnson, Miss R—d, Miss R., and Miss E.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Mr. G.	Miss R.	"Jemima."	"Is it Lawrence? No—it looks like a long name, but I can't see what it is a bit . . . No . . . Angelo, is it?" (All were now shewn the name and called upon to think.) . . . "It begins with a J . . . Oh! I see a J." (Mr. G.: "Do you see the letters as a whole?") "I'll try to look at the letters. Oh! I can see five or six letters, but can't get the name." (Mr. G.: "Then you see the letters. Well, take it letter by letter. You've named the first letter; now, what is the next?") "Is it E?" (Mr. G.: "Right. Now the third letter.") "M." ("Right—the fourth letter?") "I." ("Right—next letter?") "Two more, like C A." ("A is right; now look at the last letter but one.") "E, I think." N.B.—The subject had no idea of the name, or of what letters had passed through her mind, so as to get the name.
do.	Miss E.	"Joseph."	"Mary"—failure.
do.	Miss R.	"Margaret."	"Is the beginning of it C?" (All were now shewn the name and invited to think.) "Is it Mabel? Oh, it's Maggie or Margaret."

November 1, 1883.

Present : Prof. Herdman, Mr. Guthrie, Mr. Birchall, Miss R—d, Miss E., and Miss R.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
Mr. G.	Miss E.	Letters R L on a card, set up behind percipient, who was first blindfolded as usual.	"Are there two letters . . . is S one? . . . L is one . . . R . . ."

November 1, 1883 (continued).

Present: Prof. Herdman, Mr. Guthrie, Mr. Birchall, Miss R—d, Miss E., and Miss R.

AGENT.	PERCIPIENT:	OBJECT.	RESULT.
All present.	Miss E.	Letters K Q B set up as here placed.	"Is there more than one letter? Two, I think . . . S? No . . . Oh! dear, that S will bother me." (Mr. G.: "We'll take the letters separately if you like."), . . . "K?" ("Right, now the next one?") "P . . . looks like an O . . . might be O or Q . . . then B." (Mr. G.: "Right . . . what position are the letters in—can you tell?") "No, I can't." (Mr. G.: "Well, look at the letters as a whole.") . . . "Does K come first? then the O or Q . . . then B . . . Are they all one after the other?" (Mr. G.: "I want you to tell me that.") . . . "Is the B over? . . . I can't see distinctly."
do.	Miss R.	Mr. G. first observed that he would try and think of a name.	After some three or four minutes the name was said to be "Sarah." This was wrong.
do.	do.	"Lorenzo."	No answer came for a time. (Mr. G., "Will you try and spell it?") "Is it J?" ("No.") . . . "L?" ("Right. Now the next?") "O?" ("Right.") "G? . . . F?" . . . (Mr. G.: "You must not guess; you must take the impression. Is it a name you are acquainted with?") . . . "R?" ("Right. Next letter?") "D." ("No.") . . . "E. . . N." ("Right.") . . . "Is it S or Z?" . . . ("Right.") . . . "N . . . M . . . O or Q. Don't know what I spelled."
do.	do.	"Zion."	At the end of about thirty seconds and no reply coming, Mr. G. asked, "Has the word come to you?" . . . "No." ("Then we'll take it letter by letter.") "Is it Z again?" ("Right.") "I." . . . ("Right. Next letter.") . . . "O." ("Right.") . . . "P? M?" . . . ("No.") "N."

November 1, 1883 (continued).

Present: Prof. Herdman, Mr. Guthrie, Mr. Birchall, Miss R—d., Miss E., and Miss R.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	do.	"Polonius."	"I've got a confused idea of O's and P's; but don't know what it is. Is it Apollo? No, I can't get it." (Mr. G.: "Well will you spell it?") . . . "P." ("Right.") "O." . . . ("Right.") "L." . . . ("Right.") . . . "N." ("Right." Mr. G. passed over the O, as it had been missed by Miss R.; but no one noticed it. He continued, "Now the next after the N.") . . . "L." ("Right.") . . . "S . . . U."

November 7, 1883.

Present: Mr. Steel, Mr. Guthrie, Mr. Birchall, Miss R—d., Miss E., and Miss R.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss E.	Letter N.	"Is it a letter? . . . H? . . . I can't see anything distinctly." (Mr. G. here placed himself in contact.) . . . "L." . . . (Given up.) N.B.—No previous intimation given of what kind of object would be set up.
Mr. G.	do.	Letters T F.	"Is it another letter? . . . I seem to see J . . . but not very distinctly, I see so many . . . Y." ("No.") . . . "Don't think I shall get it . . . there seem to be two or three letters." . . . (Given up.)
do.	do.	Letter Q.	.. "S." ("No.") . . . "Oh, dearme." ("We shall have to pass you over.") . . . "I think so." Miss R—d now joined with Mr. G. in contact, but no result came.

November 7, 1883 (continued).

Present : Mr. Steel, Mr. Guthrie, Mr. Birchall, Miss R—d., Miss E., and Miss R.

AGENT.	PERCIPIENT.	OBJECT.	RESULT.
All present.	Miss R.	A reddish coloured vase or urn cut out in cardboard.	Some three or four minutes elapsed before the answer came. "Is it a colour? . . . I seem to see some green about it." (Mr. G. here placed in contact.) . . . "Oh, Mr. Guthrie, I seem to see such a lot of colours." (Mr. G.: "Well, never mind the colours; take the form of it.") . . . (Given up.)
Mr. G. and Miss R—d.	do.	A teapot cut out in silver coloured cardboard.	After about five minutes the percipient said, "Is there anything bright . . . like silver? . . . Is it a teapot?"

III.

APPENDIX TO THE REPORT ON MESMERISM.

In the Report printed above, we were mainly occupied with one fundamental question—the question of the reality of the mesmeric force; in other words, of the reality of the specific facts of Mesmerism, whether mingled with, or standing beyond and distinct from, those of Hypnotism. As time goes on we shall hope to deal with some further departments of the subject, including the vexed questions (often called, *par excellence*, the higher phenomena) of clairvoyance, phreno-mesmerism, mesmeric healing, and mesmeric effects produced without either fixation, manipulation, or expectancy. But one fact remains which concerns the lower phenomena as much as the higher, and which is of such fundamental importance in the study, whether of Hypnotism or of Mesmerism, that the statement of it (though involving references to future topics) will find its most fitting place here. It is a fact on which Dr. Elliotson, one of the acutest minds that ever applied itself to these subjects, frequently insisted, but which both mesmerists and anti-mesmerists, though for different reasons, have often been tempted to ignore. Briefly it is this: that (with certain exceptions to be hereafter explained) the more startling effects of Hypnotism and Mesmerism may be matched with occurrences, either closely parallel or absolutely identical, which have occurred spontaneously; while at the same time, the rarity and the pathological character of their spontaneous occurrence are entirely in accordance with that theory of *exceptional* nervous affection which has throughout recommended itself to us. The fanatical mesmerist is apt to keep this spontaneous occurrence in the background, as tending to impugn the unique character of the influence which he is celebrating. The anti-mesmerist begins by relegating these mysterious phenomena to the scanty chapters on “Somnambulism” which form one of the weakest points in the medical conspectus of man; and then, when he is confronted with these same phenomena as produced by Mesmerism, he exclaims that they are incredible, and dismisses them as inconsistent with established physiological laws. Now it is perfectly true that some of these phenomena do sound incredible; that they cannot possibly be fitted into our present conceptions of the way in which the nervous system acts. But it is not Mesmerism which is responsible for them, but Nature; that is to say, Mesmerism offers a special way of producing phenomena which have been spontaneously produced in ways wholly

unknown to us for centuries before Mesmer was born. To prove this in detail (a task which we hope hereafter to attempt) would carry us far beyond our present limits. We must content ourselves here with referring the reader to the list of authorities given below, a list which, though by no means exhaustive, contains, we think, full justification of all that we shall at present advance.*

What, then, are the main modifications of ordinary waking consciousness, which spontaneous *sleep-wakers* (to use a term of convenient vagueness) have been observed to present? The rough analysis, which is all that we shall here attempt, shews us that these modifications extend irregularly over one or more of five regions.

Confining ourselves to broad distinctions of external manifestation, we find obvious changes occurring in (1) sensibility to pain; (2) sensory and supersensuous perception; (3) the current of consciousness; (4) memory; and (5) emotional disposition or character. In each of these particulars we are familiar with certain changes induced by states of nutrition, by expectant attention, by narcotics, by disease. But in each case the spontaneous sleep-waking state will be found to carry us on by an unbroken series from changes which are familiar and in a certain sense explicable, to changes which altogether transcend the bounds of our systematised knowledge.

Thus, as regards sensibility to pain, we have first the ordinary somnambulist, who shews much the same bluntness of sensibility as a man shews when deeply absorbed in reverie, but who may nevertheless be awakened by a sharp blow or the touch of a hot object. Then we come to cases such as that of Professor Haycock, who "would preach in his sleep so steadfastly that no pinching would wake him;" † and then to such cases as that of Mrs. Griffiths, a patient of Dr. Lingens's ‡ who was repeatedly laid up with severe scalds, caused by her unfortunate habit of cooking her husband's dinner in the somnambulant state and

* See the collections of somnambulant and other cases contained in the following works:—Dr. Abercrombie on the *Intellectual Powers*; Dr. Azam in *Revue Scientifique* for 1876, 1877, and 1879; Dr. Belden's *Account of Jane Rider*; Dr. Erasmus Darwin's *Zoonomia*; Dr. Dyce in *Edinburgh Philosophical Transactions*, 1822; Dr. Dufay in *Revue Scientifique*, 1876; Dr. Elliotson in his *Physiology and the Zoist*, vol. iv.; Dr. Macnish's *Philosophy of Sleep*; Dr. Mayo's *Truths contained in Popular Superstitions*; M. Taine's *Traité de l'Intelligence*; Dr. Trousseau's *Leçons Cliniques*; M. Ribot on *Diseases of Memory*; and Professor Wienholt's *Lectures on Somnambulism*. Dr. Herbert Mayo, F.R.S., was Professor of Anatomy and Physiology in King's College, and of Comparative Anatomy in the Royal College of Surgeons, London. We quote from the third edition of his book.

† Macnish, p. 170.

‡ *Zoist*, vol. iv. p. 181.

then throwing the boiling water over her legs, without any perception of having done so till she spontaneously "came to herself." In this case, and in others like it, there was no indication whatever of nervous lesion in the ordinary state, nothing to account for this idiopathic and fitful insensibility to the severest pain.

Again, in the matter of the acuteness of sense-perception, we are familiar with marked exaltations of sensibility in fever, or under the influence of certain drugs. It does not surprise us to find that the sense of muscular balance in the somnambulist is often so acute that he can pass without tottering along roofs wholly impassable to his waking feet. It does not surprise us to find that he can at times hear sounds which are too faint for other ears to catch. But we begin to be staggered when we come to a metastasis of function, when the patient, deaf to all shouting at her ear, hears a whisper at the pit of her stomach.* And as regards *vision*, the sleep-waker's condition offers a series of puzzles. We are of course prepared to believe that the eye may become sensitive to amounts of light far lower than are normally perceptible. We hear, therefore, without incredulity of the sleep-waker who threads her needle under the table, or blows out the candle at midnight before she washes up the dishes, under the impression that she had just had breakfast, and that it is wasteful to burn lights in broad daylight. But the observers of sleep-waking cases go on to insist on what seems a quite needless stumbling-block; they tell us that the eyes of the sleep-wakers are not open but shut, with pupils upturned, or that if the eyes are open, at any rate there is "no speculation" in them, but a mere vacant glare. If we reply that this must be a mistake of observation, they go on to overwhelm us with cases† where the patient reads with the palm of her hand, or with the back of her neck, or criticises the moves of chess-players sitting immediately behind her. Nor is even this all. Professor Mayo became convinced, or, as he expresses it, "resigned himself to the belief," that these spontaneously arising powers sometimes attain a degree so extraordinary that we prefer to describe it in his own words:—‡ "The patient manifests new perceptive powers. She discerns objects all around her and through any obstructions, partitions, walls, or houses, and at an indefinite distance. She sees her own inside, as if it were illuminated, and can tell what is wrong in the health of others. The ordinary obstacles of space and matter vanish to her." It is obvious that the claims of clairvoyance when induced by Mesmerism can

* Dr. Pététin's case; Mayo, p. 113, &c.

† Mr. Bulteel's case, Dr. Pététin's cases, Dr. Delpit's case, in Dr. Mayo's collection alone.

‡ *Popular Superstitions*, p. 111.

scarcely go beyond the powers here ascribed to spontaneous or idiopathic trance.

To proceed to the next point. The mesmerist, when he claims that he can limit the stream of consciousness, and bestow a temporary dominance on some one idea or emotion, only asserts that he can produce a phenomenon which admittedly occurs already both in apparent health and in disease. The power of suggestion begins in the condition of ordinary dream before it attains its intenser degree in somnambulism. The sleeping officer follows with growing anxiety the description of a battle whispered to him by his friends, till at last he jumps from his bed and runs headlong away.* The sleeping beauty, whose ingenious lover has obtained permission to breathe his own name in her ear, is melted at last into tenderness for him by the strange-recurrent dream. In more advanced stages the sleep-waker acts out his vision among waking men; he fancies himself employed in some habitual duty, answers only the remarks which bear on this supposed employment, and neglects all external stimuli which he cannot co-ordinate with his dominant train of ideas.

It is possible that we may ultimately be able to trace an unbroken line of progression from the voluntary and transient hypertrophy of a mental image which is necessary for the thinker who wishes it to stand forth distinctly in his brain, to the degenerative hypertrophy of a group of such images which renders them permanently dominant in consciousness and impossible to dislodge. And the key to such inquiries seems to lie in the somnambulant state—midway between idiopathic reverie and monomania—and combining an hallucination as profound as the lunatic's with a capacity of recall as sudden as the shock which arouses a Socrates to the perception that he is not in the ideal world, but before Potidæa. The great drawback is the rarity of these cases of instructive trance; and when the mesmerist claims to reproduce them, he is merely offering to reproduce by empirical means an observed abnormal state, which physiologist and psychologist alike may well desire to be reproduced. It is of course a question of evidence as to whether or not the mesmerist succeeds in this avowedly empirical reproduction of a most obscure nerve-condition; but there is at any rate no reason whatever why his evidence should be slighted, or his attempt dismissed *a priori* as fantastic and unphysiological.

The next point on which, as we urge, the claims of Mesmerism have already been far exceeded by the unsought phenomena of Nature is that of intermittent memory—of the establishment of a second state, which carries on its own memories from one access to another, but whose recollection of the normal state is in varying degrees imperfect,

* Abercrombie, p. 277.

and which is itself altogether forgotten so soon as the normal state recurs. The complexity of these intercurrent memories may reach a point which imagination can scarcely realise. Dr. Mayo cites a case of quintuple memory, where a normal state was interrupted by four separate morbid states, each with a memory of its own. The phenomena, whether of amnesia or hypermnesia, which mesmerists allege, reach no such marvellous pitch as this; but they offer a means of direct experimentation such as cannot otherwise be obtained in this direction; and some of the cases adduced—as of the so-called “mesmeric promise,” or impression made on the brain in the mesmeric state, which irresistibly works itself out in the subsequent normal condition—present a singular conformity to some of the best physiological speculations on the mechanism of memory.

The fifth point which we mentioned as conspicuously subject to modification from obscure but spontaneously arising causes, was *character*—the set of emotional and volitional dispositions which make up a recognisable personality. Character is of course largely influenced by *memory*: a change in the body of pictures reproducible at will must needs change the general conception of the universe on which a man's more definite views and preferences are based. And there is a child-like sense of freedom and deliverance in the escape from the trammelling recollection of what one has done in the past, and what other people think about one, which forms a marked feature in many accounts of spontaneous double-consciousness as well as of mesmeric trance. But the history of spontaneous double-consciousness includes also cases where character alters—as though through some altered distribution of the supply of blood to the brain—while in the altered state the memories of the normal state are preserved. Such cases are of much importance with reference to certain allegations of permanent change in emotional disposition effected by Mesmerism; and it may not be out of place to refer here to Dr. Azam's case of Félicité X. (the earlier stages of which have been already summarised in *Mind*)—a story which brings home to us the relativity of human judgments, the pathetic limitations of man's outlook on the world, more forcibly than any romance:—

Félicité X., an hysterical young woman living in the South of France, became subject in 1856 to accesses of what was at first considered as somnambulism—states lasting a few minutes or hours, of which she retained no consciousness on regaining her normal condition. Gradually the duration of these accesses increased; they became considerable enough to rank as a “second state;” and it was observed that in this second state Félicité perfectly remembered the first state, though in the first or normal state she forgot the second. The second state gradually grew upon her till it has become almost continuous, her relapses into the first state occupying perhaps not more than one day per

month. And it is remarkable that her second state is in all respects superior to her first. Her health is better; *her character is more cheerful and even*; her memory perfect for both states. She is aware of her occasional entry into her first state, but she considers that as abnormal, and though not unduly distressed by it she would fain avoid its occurrence. When in the first state, on the other hand, her aches and pains return, and her memory for the second state disappears. She is then truly miserable, even to the verge of suicide, and helplessly bewildered by the vast gaps in her memory, which are so profound and extensive that if her husband or children happen to be out of the room at the moment when she enters the first state she does not know whether they are alive or dead, and waits anxiously to see whether they come in again. She is ashamed of this loss of memory, and uses all her art to conceal it. Of late she has hit on a plan which somewhat lessens this inconvenience. When she feels that an access of the first state is coming on, she writes a letter to her other self, giving a précis of the facts which she considers it desirable that that self should know. Thus, for instance, she details the orders which have to be executed, the measurements of chintz, &c. But there are cases where the poor creature is glad to forget. For example, in the second state she learnt facts giving her grave cause for jealousy as to her husband's conduct with a female friend of her own. So much did this distress her that she attempted suicide. She was rescued before life was extinct; and then in her new misery she ardently desired the return of the first state, with all its suicidal gloom—preferring, as one may say, to hang herself in forgetfulness of the truth, rather than because she remembered it. She has since then, in fact repeatedly returned to the first state, and knows nothing therein of the trouble which has come on her second self. Yet this immunity is not without its inconveniences; for while, in the second state, she rejects indignantly all acquaintance with the treacherous friend, she knows that there will be, as it were, intercalary days of amnesty when she will greet her again with cordiality and ease.

The brief sketch thus given of some of the abnormal phenomena of sensation and consciousness which do unquestionably occur and which unquestionably occurred before Mesmerism was named or thought of, might easily have been indefinitely extended. But enough has been said we think, to shew how unscientific is the objection urged against Mesmerism on account of the *incredible character* of the phenomena said to be thereby induced. It may or may not be the case that the mesmeric process induces these phenomena; but to call such phenomena *a priori incredible*, is to ignore or disregard an immense though scattered mass of testimony (of a perfectly unbiased kind) to the existence of precisely similar and of still stranger phenomena, which have been sporadically observed in all ages and countries in which anything like accurate observation has been possible.

For our own part we feel so strongly the profundity of the mysteries which the phenomena of somnambulism involve that we cannot recognise any *a priori* objection to what may be called the grotesque simplicity of method with which Mesmerism attacks them. We cannot but

remember that the first clues to problems whose solution lies far beyond the resources of existing knowledge are generally discovered accidentally and in unexpected quarters. We are in no way suggesting that a clue thus empirically discovered is likely to prove to be the central solution, the true *mot de l'énigme*. We are inclined to attribute a quite co-ordinate importance to the classes of experiments associated with the names of Reichenbach and of Charcot, which indicate hitherto unexpected relationships between the nervous system and certain forces resident in inorganic matter; and we watch with great interest the various series of experiments which Professor Stanley Hall and others are conducting on the more easily accessible forms of abnormal nervous states. But we urge that these experiments are not enough; that, the higher the generalisations to be reached, the more various probably must be the means employed for reaching them; and that, besides the exactly measurable experiments which can be instituted on such points (for instance) as the modification in the speed of nervous reactions in the hypnotic state, we need an immense mass, an immense variety, of experiments—necessarily indeed vaguer, but not on that account less instructive—on the higher, the rarer, the less analysable phenomena. Some of these phenomena are wholly irreproducible. A case like Félicité's must simply be waited for till it occurs of itself. But other rare phenomena—sense-metastasis, clairvoyance, alternating memory, emotional modification—these Mesmerism, and Mesmerism almost alone, claims to be able to reproduce. This claim—which we shall hope to discuss in a subsequent paper—may be mistaken or exaggerated, but at any rate it is not obviously absurd, it is not *primâ facie* illegitimate. And if the claim be in any measure justified by facts, if this strange empirical process can achieve one-tenth of what Elliotson, Esdaile, or Mayo have claimed for it, there will assuredly be matter for the close attention of all exact inquirers. For a new roadway of direct experiment will have been driven into the jungle of those obscure phenomena which Science neglects because they cannot be accurately tested, and Ignorance distorts because they cannot be authoritatively explained.

NOTE ON MUSCLE-READING.

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About six months ago I was led to try a few experiments in so-called Thought-reading, as exhibited by Stuart Cumberland, and I was very soon convinced that all that he had done, and much more, could be effected by careful interpretation of muscular indications. A number of public lectures afforded me opportunity for confirming my opinion by numerous experiments performed upon a great number of "subjects," usually strangers to myself, but selected by the audience or chairman of the meeting. A few general results may be worth putting upon record.

(1) *Character of the Experiments*.—They included the discovery of persons thought of in the audience, and articles worn by them; the finding of pins and other hidden articles; reading the numbers of bank notes, both by means of tickets with the ten digits printed on them and placed on a table, and by writing the numbers on a blackboard; the localisation of pains; following a track chalked out on the floor; and other similar tests. It will be observed that in all these cases the thought discovered is a thought involving either motion in a definite direction, or a definite point in space, the position of which has been indicated by movements.

(2) *Modus operandi*.—The subject was directed to concentrate his whole attention on the person, number, &c., thought of. I (of course blindfolded) took his left hand, as being more automatic than the right; then if the object was to find some person or thing in the room, I walked somewhat rapidly in front of my patient, following the indications he gave, until the person or thing was reached. If the number of a bank note was to be discovered, I moved the patient's hand rapidly to and fro over the figured cards on the table until I found where it most contentedly rested, so obtaining the five figures in succession; or else laid his right hand upon the back of my own, and following his indications wrote the figures successively on a blackboard. In localising a pain, the patient's hand was rapidly passed over his body until some preferential point was discovered. I found further that for the large scale experiments it was quite enough to have a walking stick between myself and the patient, he holding one end and myself the other; indeed, I have succeeded occasionally with only a piece of thin wire as the connective.

In all cases muscular indication was all that I used; I never had any thought borne in upon my mind, or any image produced there; there

was no genuine Thought-reading. I simply followed muscular signs. These varied very much in clearness and force. Sometimes the subject positively did all the work, leading me to the place, writing the figures, and so on while I was passive as possible; in such cases I have often gone on to write words or sentences upon the board under their guidance. But such instances were rare; as a rule, I had to make a careful estimate of the muscular resistance in each direction and follow the line of least resistance until the place was reached or the figure so far shaped as to be recognisable; then the indications usually became very much more positive.

(3) *Failures and their Causes.*—I more or less completely failed in about one case in four on an average. Probably the failures would have been fewer if I had had ladies as my patients; as I have always, in private experiments, found them very good subjects. In every case of failure where inquiry could be made, sufficient reason was discovered. The most usual cause was determination not to allow the thing to be done; the patient having an idea that it was a question of his will being conquered by mine, and so bracing himself up to resist. Occasionally persons came forward, determined to thwart me, either because they thought it was "all humbug," or because they considered the phenomena to be due to spiritualistic agencies. When the subject had a financial interest in the experiment, I found success to be very difficult to obtain. Boys, as a rule, I found to be impracticable subjects; possibly because they found it impossible to concentrate their thoughts intensely, whilst facing a large audience. I soon found out, too, that persons with cold, dry hands were never so easy to deal with as those with warm, moist hands.

(4) *The Experience of the Patients.*—It is most important to note, that in almost all cases, the question was asked, "Did you give me any indication of what you were thinking about?" and the answer was invariably "No, not the least." The whole was done without any consciousness, and often in spite of a resolution to be quite passive. This should be remembered, whenever contact has been allowed in supposed genuine experiments in Thought-reading. The assurance of the person who is in contact with the Thought-reader, that he gave him no indication, is absolutely worthless. The most respectable and trustworthy persons have, over and over again, assured me that they have never moved their hand, when I have known that they have simply used my hand as a pen, and have written with it, and the chalk it held, using far more effort than they would if the chalk had been in their own fingers. It should be further noted that contact with my hand is not necessary. I have succeeded in finding a person thought of in a room, when the patient's hand was simply laid upon my forehead, or upon my shoulders. The result of my experience would lead me to doubt any

case of alleged Thought-reading where contact of any kind had been allowed.

(5) One or two observations, bearing on the unconscious action of the mind, may be recorded. I noticed very often that when an article had been hidden in one place, and then transferred to another, my patient almost invariably took me first to the first place, and then after a short search there suddenly went off to the right place. The same sort of thing has happened in the case of figures. If the figure has been changed, the one first thought of came out first, only to be declared wrong. Once in writing a bank note number, I could get nothing but twos; they were declared to be wrong; "but," said the patient, "there were twos on another part of the note which I particularly noticed." This is of interest as bearing on the well-known fact that in so-called spiritualistic revelations the things told are things which the questioner has possibly even forgotten, but which have once been in his mind.

I also found that it is difficult for the mind to avoid transferring itself from one thing to another like it. In finding pins, &c., I have often been led, not to the right place, but to a place similar to it; as *e.g.*, the pin has been in one corner of the room, and I have gone to the other; or it has been in some one's pocket, and almost every pocket that I came near has had to be searched. One case was very singular. The pin had been hidden in the heel of a man's boot, under the instep. I was at once taken to a man near the platform, and got down to his boot heel and to the very spot where the pin really was, but in another man's boot. I could get no farther with that "subject"; but on taking another I at once found the right man, and the pin in his boot-heel.

I may finally add that I have no special power in this direction. I have rarely found anyone who could not pretty readily succeed in performing any of these experiments after a very little practice; and even on the first attempt, if they had confidence.

