

## V.

## PROCEEDINGS OF THE GENERAL MEETING ON

*June 30, 1884.*

The ninth General Meeting of the Society was held at the Garden Mansion, Queen Anne's Mansion, S.W., on Monday, June 30, 1884.

PROFESSOR BALFOUR STEWART, F.R.S., VICE-PRESIDENT, IN THE CHAIR.

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The following address was delivered by the Chairman :—

Residing as I do at Manchester, I cannot refrain from adverting to the loss which our Society has suffered in the death of Dr. Angus Smith. It has never been my lot to meet with a man of greater simplicity and purity of character, or of greater love for truth. Whilst we all deeply mourn his loss, it is a source of satisfaction to think that the name of one so eminent in many ways should be found on the roll of our Society. It is likewise cause for much satisfaction that men of science of undisputed eminence have recently consented to join our ranks. And I have been much gratified by the unanimous verdict of scientific candour and honesty which a perusal of our memoirs has called forth from men who are, nevertheless, not disposed to join us at present.

Being myself engaged in physical science I should like to make a single remark on that part of our programme which refers to the production of peculiar physical phenomena. I know that the investigations in this direction, upon which several members of this Society are engaged, have not yet been developed sufficiently to be brought before us for discussion ; but my remark is of a general nature, and can in no way prejudice that which is now going on.

Those who have discussed the subject of what I will call Free-will, may be divided into two classes or schools.

*First.* The Materialistic, embracing those who believe that all acts of will, all desires and aspirations of the Ego, are the results of certain material transformations in the brain, which transformations take place according to ordinarily-understood physical laws.

*Secondly.* The Spiritualistic schools, or those who believe that something in the Ego is theoretically, as well as practically, above ordinary matter, and is the cause rather than the effect of certain changes in the brain.

It is rather of the Spiritualistic school, as above defined, that I would now speak. I cannot, of course, tell how this school will view evidence tending to prove a peculiar action of mind upon matter, but I think I can tell how they ought to view it. Believing as they do that something in the Ego is theoretically as well as practically above matter, they must believe that to a greater or less extent the usually-received physical axioms are broken by it. That is to say, they have been driven, it may be by ethical and metaphysical views, into an assertion with reference to Physics which they nevertheless believe to be quite unsupported by physical evidence. Surely then they ought above all others to welcome observations tending to show that there may possibly be an action of mind over matter in other regions than that of the brain.

For my own part, while I do not dispute the truth of the position held by the advocates of what I call Free-will, I yet acknowledge the difficulty of its being held permanently as a single isolated exception, incapable of verification. Exceptions are not dead units, but have a family life of their own, with their own peculiar traditions and places of resort; and just as the naturalist, who has got hold of a unique beetle, goes next day to the same hunting-ground in the hope that he may obtain its fellow, so—I am prepared to maintain—should the investigator who thinks he has discovered, no matter how, an undoubted exception, explore the most likely places for its fellow, which, if there be truth in his position, he is almost certain sooner or later to secure.

## VI.

AN ACCOUNT OF SOME EXPERIMENTS IN THOUGHT-  
TRANSFERENCE.

BY OLIVER J. LODGE, D.Sc.,

Professor of Physics in University College, Liverpool.

Members of the Society for Psychical Research are all perfectly aware of the experiments in Thought-transference which have been originated and carried out by Mr. Malcolm Guthrie, in Liverpool.

Perhaps it may not be considered impertinent, since it bears on the question of responsibility and genuineness, if I state that Mr. Guthrie holds an important position in Liverpool, being a Justice of the Peace, and an active member of the governing bodies of several public institutions, among others of the new University College; that he is a severe student of philosophy, and the author of several works bearing on the particular doctrines of Mr. Herbert Spencer. I may also say that he is a relative of Professor Frederick Guthrie, and that he has exhibited in this experimental research such care and systematic vigilance as might perhaps have been expected on Mr. Francis Galton's principles, and such as would, if properly directed, have placed him in a high rank of experimental philosophers. I may also remind you of what he himself has here said, viz., that he is a partner in the chief drapery establishment in Liverpool, and that it is among the employés of that large business that the two percipients hereafter referred to were accidentally discovered.

Let it be understood that the experiments are Mr. Guthrie's, and that my connection with them is simply this:—that after Mr. Guthrie had laboriously carried out a long series of experiments and had published many of his results, he set about endeavouring to convince such students of science as he could lay his hands upon in Liverpool; and with this object he appealed to me, among others, to come and witness, and within limits modify, the experiments in such a way as would satisfy me of their genuineness and perfect good faith.

Yielding to his entreaty I consented, and have been, I suppose, at some dozen sittings; at first simply looking on so as to grasp the phenomena, but afterwards taking charge of the experiments—Mr. Guthrie himself often not being present, though he was always within call in another room, ready to give advice and assistance when desired.

In this way I had every opportunity of examining and varying the minute conditions of the phenomena so as to satisfy myself of their genuine and objective character, in the same way as one is accustomed to satisfy oneself as to the truth and genuineness of any ordinary physical fact.

I did not feel at liberty to modify the experiments very largely, in other words to try essentially new ones, because that would have been interfering with Mr. Guthrie's prerogative. I only regarded it as my business to satisfy myself as to the genuineness and authenticity of the phenomena already described by Mr. Guthrie. If I had merely witnessed facts as a passive spectator I should most certainly not publicly report upon them. So long as one is bound to accept imposed conditions and merely witness what goes on, I have no confidence in my own penetration, and am perfectly sure that a conjurer could impose on me, possibly even to the extent of making me think that he was not imposing on me ; but when one has the control of the circumstances, can change them at will and arrange one's own experiments, one gradually acquires a belief in the phenomena observed quite comparable to that induced by the repetition of ordinary physical experiments.

It is only on these grounds that I have been asked to report progress to-night, and it is only on these grounds that I have consented.

After this long preamble you may be disappointed to hear that I have no striking or new phenomenon to report, but only a few more experiments in the simplest and most elementary form of what is called Thought-transference ; though certainly what I have to describe falls under the head of "Thought-transference" proper, and is not explicable by the merely mechanical transfer of impressions, exhibited before large audiences, signalised by sensational articles in the daily Press, and more properly described as muscle-reading.

In using the term "Thought-transference," I would ask to be understood as doing so for convenience, because the observed facts can conveniently be grouped under such a title ; but I would not be understood as implying that I hold any theory on the subject. It is a most dangerous thing to attempt to convey a theory by a phrase, and, probably, if I held any theory on the subject, I should be more guarded in my language, and should require many words to set it forth. As it is, the phrase describes correctly enough what appears to take place, viz., that one person may, under favourable conditions, receive a faint impression of a thing which is strongly present in the mind, or thought, or sight, or sensorium of another person not in contact, and may be able to describe or draw it more or less correctly. But how the transfer takes place, or whether there is any transfer at all, or what is the physical reality underlying the terms "mind,"

“consciousness,” “impression,” and the like ; and whether this thing we call mind is located in the person, or in the space round him, or in both, or neither ; whether indeed the term location, as applied to mind, is utter nonsense and simply meaningless,—concerning all these things I am absolutely blank, and have no hypothesis whatsoever. I may, however, be permitted to suggest a rough and crude analogy. That the brain is the organ of consciousness is patent, but that consciousness is located in the brain is what no psychologist ought to assert ; for just as the energy of an electric charge, though apparently on the conductor, is not on the conductor, but in all the space round it ; just as the energy of an electric current, though apparently in the copper wire, is certainly not all in the copper wire, and possibly not any of it ; so it may be that the sensory consciousness of a person, though apparently located in his brain, may be conceived of as also existing like a faint echo in space, or in other brains, though these are ordinarily too busy and pre-occupied to notice it.

The experiments which I have witnessed proceed in this sort of way. One person is told to keep in a perfectly passive condition, with a mind as vacant as possible ; and to assist this condition the organs of sense are unexcited, the eyes being bandaged and silence maintained. It might be as well to shut out even the ordinary street hum by plugging the ears, but as a matter of fact this was not done.

A person thus kept passive is “the percipient.” In the experiments I witnessed the percipient was a young lady, one or other of two who had been accidentally found to possess the necessary power. Whether it is a common power or not I do not know. So far as I am aware very few persons have been tried. I myself tried, but failed abjectly. It was easy enough to picture things to oneself, but they did not appear to be impressed on me from without, nor did any of them bear the least resemblance to the object in the agent’s mind. [For instance, I said a pair of scissors instead of the five of diamonds, and things like that.] Nevertheless, the person acting as percipient is in a perfectly ordinary condition, and can in no sense be said to be in a hypnotic state, unless this term be extended to include the emptiness of mind produced by blindfolding and silence. To all appearance a person in a brown study is far more hypnotised than the percipients I saw, who usually unbandaged their own eyes and chatted between successive experiments.

Another person sitting near the percipient, sometimes at first holding her hands but usually and ordinarily without any contact at all but with a distinct intervening distance, was told to think hard of a particular object, either a name, or a scene, or a thing, or of an object or drawing set up in a good light and in a convenient position for staring at. This person is “the agent” and has, on the whole, the hardest time of it.

It is a most tiring and tiresome thing to stare at a letter, or a triangle, or a donkey, or a teaspoon, and to think of nothing else for the space of two or three minutes. Whether the term "thinking" can properly be applied to such barbarous concentration of mind as this I am not sure; but I can answer for it that if *difficulty* is an important element in the definition of "thinking," then it is difficult enough in all conscience.

Very frequently more than one agent is employed, and when two or three people are in the room they are all told to think of the object more or less strenuously; the idea being that wandering thoughts in the neighbourhood certainly cannot help, and may possibly hinder, the clear transfer of impression. As regards the question whether when several agents are thinking, only one is doing the work, or whether all really produce some effect, I have made a special experiment, which leads me to conclude that more than one agent can be active at the same time. We conjecture that several agents are probably more powerful than one, but that a confusedness of impression may sometimes be produced by different agents attending to different parts or aspects of the object: this, however, is mere conjecture.

Most people seem able to act as agents, though some appear to do better than others. I can hardly say whether I am much good at it or not. I have not often tried alone, and in the majority of cases when I have tried I have failed; on the other hand, I have once or twice apparently succeeded. We have many times succeeded with agents quite disconnected from the percipient in ordinary life and sometimes complete strangers to them. Mr. Birchall, the headmaster of the Birkdale Industrial School, frequently acted; and the house physician at the Eye and Ear Hospital, Dr. Shears, had a successful experiment, acting alone, on his first and only visit. All suspicion of a pre-arranged code is thus rendered impossible even to outsiders who are unable to witness the obvious fairness of all the experiments.

The object looked at by the agent is placed usually on a small black opaque wooden screen between the percipient and agents, but sometimes it is put on a larger screen behind the percipient. The objects were kept in an adjoining room and were selected and brought in by me, with all due precaution, after the percipient was blindfolded. I should say, however, that no reliance was placed on, or care taken in, the bandaging. It was merely done because the percipient preferred it to merely shutting the eyes. After recent experiments on blindfolding by members of the Society, I certainly would not rely on any form of bandaging; the opacity of the wooden screen on which the object was placed was the thing really depended on, and it was noticed that no mirrors or indistinct reflectors were present. The only surface at all suspicious was the polished top of the small table on which the opaque screen usually stood. But as the screen sloped backwards at a

slight angle, it was impossible for the object on it to be thus mirrored. Moreover, sometimes I covered the table with paper, and very often it was not used at all, but the object was placed on a screen or a settee behind the percipient; and one very striking success was obtained with the object placed on a large drawing board, loosely swathed in a black silk college gown, and with the percipient immediately behind the said drawing board, and almost hidden by it.

As regards collusion and trickery, no one who has witnessed the absolutely genuine and artless manner in which the impressions are described, but has been perfectly convinced of the transparent honesty of purpose of all concerned. This, however, is not evidence to persons who have not been present, and to them I can only say that to the best of my scientific belief no collusion or trickery was possible under the varied circumstances of the experiments.

A very interesting question presents itself as to *what* is really transmitted, whether it is the idea or name of the object or whether it is the visual impression. To examine this I frequently drew things without any name—perfectly irregular drawings. I am bound to say that these irregular and unnameable productions have always been rather difficult, though they have at times been imitated fairly well; but it is not at all strange that a faint impression of an unknown object should be harder to grasp and reproduce than a faint impression of a familiar one, such as a letter, a common name, a teapot, or a pair of scissors. Moreover, in some very interesting cases the idea or name of the object was certainly the thing transferred, and not the visual impression at all; this specially happened with one of the two percipients; and, therefore, probably in every case the fact of the object having a name would assist any faint impression of its appearance which might be received.

As to *aspect*, *i.e.*, inversion or perversion, so far as my experience goes it seems perfectly accidental whether the object will be drawn by the percipient in its actual position or in the inverted or perverted position. This is very curious if true, and would certainly not have been expected by me. Horizontal objects are never described as vertical, nor *vice versa*; and slanting objects are usually drawn with the right amount of slant.

In proceeding to the details of the actual experiments, it would take far too long to recount the whole—failures as well as successes; I shall only describe a few from which a more or less obvious moral may be drawn.

The two percipients are Miss R. and Miss E. Miss R. is the more prosaic, staid, and self-contained personage, and she it is who gets the best quasi-visual impression, but she is a bad drawer, and does not reproduce it very well.

Miss E. is, I should judge, of a more sensitive temperament, seldom

being able to preserve a strict silence for instance, and she it is who more frequently jumps to the idea or name of the object without being able so frequently to "see" it.

I was anxious to try both percipients at once so as to compare their impressions, but I have not met with much success under these conditions, and usually therefore have had to try one at a time—the other being frequently absent or in another room, though also frequently present and acting as part or sole agent.

I once tried a double agent—that is, not two agents thinking of the same thing, but two agents each thinking of a different thing. A mixed and curiously double impression was thus produced and described by the percipient, and both the objects were correctly drawn.

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#### DESCRIPTION OF SOME OF THE EXPERIMENTS.

In order to describe the experiments briefly I will put in parentheses everything said by me or by the agent, and in inverted commas all the remarks of the percipient. The first seven experiments are all that were made on one evening with the particular percipient, and they were rapidly performed.

##### *A. Experiments with Miss R. as Percipient.*

*First Agent, Mr. Birchall, holding hands. No one else present except myself.*

*Object—a blue square of silk.*—(Now, it's going to be a colour; ready.) "Is it green?" (No.) "It's something between green and blue. . . . Peacock." (What shape?) She drew a rhombus.

[N.B.—It is not intended to imply that this was a success by any means, and it is to be understood that it was only to make a start on the first experiment that so much help was given as is involved in saying "it's a colour." When they are simply told "it's an object," or, what is much the same, when nothing is said at all, the field for guessing is practically infinite. When no remark at starting is recorded none was made, except such an one as "Now we are ready," by myself.]

*Next object—a key on a black ground.*—(It's an object.) In a few seconds she said, "It's bright. . . . It looks like a key." Told to draw it she drew it just inverted.

*Next object—three gold studs in morocco case.*—"Is it yellow? . . . Something gold. . . . Something round. . . . A locket or a watch perhaps." (Do you see more than one round?) "Yes, there seem to be more than one. . . . Are there three rounds? . . . Three rings." (What do they seem to be set in?) "Something bright like beads." [Evidently not understanding or attending to the question.] Told to unblindfold herself and draw, she drew the three rounds in a row quite correctly, and then sketched round them absently the outline of the case; which seemed,

therefore, to have been apparent to her though she had not consciously attended to it. It was an interesting and striking experiment.

*Next object—a pair of scissors standing partly open with their points down.*—“Is it a bright object? . . . Something long ways [indicating verticality]. . . . A pair of scissors standing up. . . . A little bit open.” Time, about a minute altogether. She then drew her impression, and it was correct in every particular. The object in this experiment was on a settee behind her, but its position had to be pointed out to her when, after the experiment, she wanted to see it.

*Next object—a drawing of a right angle triangle on its side.*—(It's a drawing.) She drew an isosceles triangle on its side.

*Next—a circle with a cord across it.*—She drew two detached ovals, one with a cutting line across it.

*Next—a drawing of a Union Jack pattern.*—As usual in drawing experi-



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ments, Miss R. remained silent for perhaps a minute; then she said, “Now I am ready.” I hid the object; she took off the handkerchief, and proceeded to draw on paper placed ready in front of her. She this time drew all the lines of the figure except the horizontal middle one. She was obviously much tempted to draw this, and, indeed, began it two or three times faintly, but ultimately said, “No, I'm not sure,” and stopped.

[N.B.—The actual drawings made in all the experiments are preserved intact by Mr. Guthrie.]

[END OF SITTING.]

#### *Experiments with Miss R.—continued.*

I will now describe an experiment indicating that one agent may be better than another.

*Object—the Three of Hearts.*—Miss E. and Mr. Birchall both present as agents, but Mr. Birchall holding percipient's hands at first. “Is it a black cross . . . a white ground with a black cross on it?” Mr. Birchall now let Miss E. hold hands instead of himself, and Miss R. very soon said, “Is it a card?” (Right.) “Are there three spots on it? . . . Don't know what they are. . . . I don't think I can get the colour. . . . They are one above the other, but they seem three round spots. . . . I think they're red, but am not clear.”

*Next object—a playing card with a blue anchor painted on it slantwise instead of pips.* No contact at all this time, but another lady, Miss R.—d, who had entered the room, assisted Mr. B. and Miss E. as agents. “Is it an anchor? . . . a little on the slant.” (Do you see any colour?) “Colour is black . . . It's a nicely drawn anchor.” When asked to draw she sketched part of it, but had evidently half forgotten it, and not knowing the use of the cross arm, she could only indicate that there was something more

there but she couldn't remember what. Her drawing had the right slant exactly.

*Another object*—two pair of coarse lines crossing; drawn in red chalk, and set up at some distance from agents. No contact. "I only see lines crossing." She saw no colour. She afterwards drew them quite correctly, but very small.

*Double object.*—It was now that I arranged the double object between Miss R——d and Miss E., who happened to be sitting nearly facing one another. [See *Nature*, June 12th, 1884.] The drawing was a square on one side of the paper, a cross on the other. Miss R——d looked at the side with



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the square on it. Miss E. looked at the side with the cross. Neither knew what the other was looking at—nor did the percipient know that anything unusual was being tried. Mr. Birchall was silently asked to take off his attention, and he got up and looked out of window before the drawings were brought in, and during the experiment. There was no contact. Very soon Miss R. said, "I see things moving about . . . I seem to see two things . . . I see first one up there and then one down there . . . I don't know which to draw. . . . I can't see either distinctly." (Well anyhow, draw what you have seen.) She took off the bandage and drew first a square, and then said, "Then there was the other thing as well . . . afterwards they seemed to go into one," and she drew a cross inside the square from corner to corner, adding afterwards, "I don't know what made me put it inside."

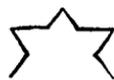
The next is a case of a perfect stranger acting as agent by himself at the first trial. Dr. Shears, house physician at the Eye and Ear Infirmary, came down to see the phenomena, and Miss R. having arrived before the others, Mr. Guthrie proposed his trying as agent alone. Dr. Shears, therefore, held Miss R.'s hand while I set up in front of him a card: nothing whatever being said as to the nature of the object.

*Object*—the five of clubs, at first on a white ground. "Is it something bright?" (No answer, but I changed the object to a black ground where it was more conspicuous.) "A lot of black with a white square on it." (Go on.) "Is it a card?" (Yes.) "Are there five spots on it?" (Yes.) "Black ones." (Right.) "I can't see the suit, but I think it's spades."

*Another object at same sitting, but with several agents, no contact, a drawing of this form—*



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"I can see something, but I am sure I can't draw it. . . . It's something with points all round it. . . . It's a star, . . . or like a triangle

within a triangle." Asked to draw it, she expressed reluctance, said it was too difficult, and drew part of a star figure, evidently a crude reproduction of the original but incomplete. She then began afresh by drawing a triangle, but was unable to proceed.

I then showed her the object for a few seconds. She exclaimed, "Oh yes, that's what I saw. . . . I understand it now." I said, "Well now draw it." She made a more complete attempt, but it was no more really like the original than the first had been.



*Experiments at a Sitting in the room of Dr. Herdman, Professor of Zoology at University College.*

*Object—a drawing of the outline of a flag.—Miss R. as percipient in*



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contact with Miss E. as agent. Very quickly Miss R. said, "It's a little flag," and when asked to draw, she drew it fairly well but perverted. I showed her the flag (as usual after a success), and then took it away to the drawing place to fetch something else. I made another drawing, but instead of bringing it I brought the flag back again and set it up in the same place as before, but inverted. There was no contact this time. Miss R.—d and Miss E. were acting as agents.

*Object—same flag inverted.—*After some time, Miss R. said, "No, I can't see anything this time. I still see that flag. . . . The flag keeps bothering me. . . . I shan't do it this time." Presently I said, "Well, draw what you saw anyway." She said, "I only saw the same flag, but perhaps it had a cross on it." So she drew a flag in the same position as before, but added a cross to it. Questioned as to aspect she said "Yes, it was just the same as before."



*Object—an oval gold locket hanging by a bit of string with a little price label attached.—*Placed like the former object on a large drawing board, swathed in a college gown. The percipient, Miss R., close behind the said board and almost hidden by it. Agents, Miss R.—d and Miss E. sitting in front; no contact; nothing said. "I see something gold, . . . something hanging, . . . like a gold locket." (What shape?) "It's oval," indicating with her fingers correctly. (Very good so far, tell us something more)—meaning

ticket at top. No more said. When shown the object she said, "Oh yes, it was just like that," but she had seen nothing of the little paper ticket.

*Next object—a watch and chain pinned up to the board as on a waist-coat.*—This experiment was a failure, and is only interesting because the watch-ticking sounded abnormally loud, sufficient to give any amount of hint to a person on the look out for such sense indications. But it is very evident to those witnessing the experiments that the percipient is in a quite different attitude of mind to that of a clever guesser, and ordinary sense indications seem wholly neglected. I scarcely expected, however, that the watch-ticking could pass unnoticed, though indeed we shuffled our feet to drown it somewhat, but so it was; and all we got was "something bright . . . either steel or silver. . . . Is it anything like a pair of scissors?" (Not a bit.)

I have now done with the selection of experiments in which Miss R. acted as percipient; and I will describe some of those made with Miss E. As a rule, these seemed perhaps less satisfactory and complete at the time, but there are several points of considerable interest noticeable in connection with them.

#### B.—Experiments with Miss E. as Percipient.

*Object—an oblong piece of red (cerise) silk.* Agent, Mr. B., in contact.—"Red." (What sort of red?) "A dark red." (What shape?) "One patch." (Well, what shade is it?) "Not a pale red."

*Next object—a yellow oblong.* Agent as before.—"A dusky gold colour. . . . A square of some yellow shade."

*Object—the printed letter r.* Told it was a letter; agent as before.—"I can see R." (What sort of R?) "An ordinary capital R."

This illustrates feebly what often, though not always, happens with Miss E.—that the idea of the object is grasped rather than its actual shape.

*Another object—a small printed e.*—"Is it E?" (Yes.) But, again, she couldn't tell what sort of E it was.

*Object—a teapot cut out of silver paper.*—Present—Dr. Herdman, Miss



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R—d, and Miss R., Miss R. holding percipient's hands, but all thinking of the object. Told nothing. She said, "Something light. . . . No colour. . . . Looks like a duck. . . . Like a silver duck. . . . Something oval. . . . Head at one end and tail at the other." [This is not uncommon in ducks.] The object, being rather large, was then moved further back, so that it might be more easily grasped by the agents as a whole, but percipient persisted that it was like a duck. On being told to unbandage and draw, she drew a rude and perverted copy of the teapot, but didn't know what it was unless it was a duck. Dr. Herdman then explained

that he had been thinking all the time how like a duck the original teapot was, and, in fact, had been thinking more of ducks than teapots.

*Next object—a hand mirror brought in and set up in front of Miss R—d.*—No contact at first. Told nothing. She said, “Is it a colour?” (No.) “No, I don’t see anything.” Object then shifted for Miss R. to look at herself in it, holding percipient’s hand. “No, I don’t get this.” Gave it up. I then hid the mirror in my coat, and took it out of the room. Dr. Herdman reports that while I was away Miss E. begged to know what the object had been, but the agents refused, saying that I had evidently wished to keep it secret. Half annoyed, Miss E. said, “Oh, well, it doesn’t matter. I believe it was a looking-glass.”

*Next object—a drawing of a right-angled triangle.* No contact.—“Is it like that?” drawing a triangle with her finger (no answer). “It’s almost like a triangle.” She then drew an isosceles triangle.

*Next object—a drawing of two parallel but curved lines.* No contact.—“I only see two lines,” indicating two parallel lines. “Now they seem to close up.”

*Next object—a tetrahedron outline rudely drawn in projection—*“Is it



another triangle?” (No answer, but I silently pass round to the agents a scribbled message, “Think of a pyramid.”) Miss E. then said, “I only see a triangle.” . . . then hastily, “Pyramids of Egypt. No, I shan’t do this.” Asked to draw, she only drew a triangle.

*Object—a rude outline of a donkey or other quadruped.*—Still no contact at first. “Can’t get it, I am sure.” I then asked the agents to leave the room, and to come in and try one by one. First Miss R—d, without contact, and then with. Next Miss R., in contact, when Miss E. said hopelessly, “An old woman in a poke bonnet.” Finally I tried as agent alone, and Miss E. said “It’s like a donkey, but I can’t see it, nor can I draw it.”

### *C.—Experiments with both Percipients at once.*

In addition to the experiments with single percipients, I tried a few with both percipients sitting together—hoping to learn something by comparing their different perceptions of the same object.

But unfortunately the experiments were not very successful; sometimes they each appeared to get different aspects or the parts of object, but never very distinct or perfect impressions. The necessity of imposing silence on the percipients, as well as on the agents, was also rather irksome, and renders the results less describable without the actual drawings.

I still think that this variation might convey something interesting if pursued under favourable circumstances. Whether greater agent-power is necessary to affect two percipients as strongly as one; or

whether the blankness of mind of one percipient re-acts on the other, I cannot say.

With regard to the feelings of the percipients when receiving an impression, they seem to have some sort of consciousness of the action of other minds on them; and once or twice, when not so conscious, have complained that there seemed to be "no power" or anything acting, and that they not only received no impression, but did not feel as if they were going to.

I asked Miss E. what she felt when impressions were coming freely, and she said she felt a sort of influence or thrill. They both say that several objects appear to them sometimes, but that one among them persistently recurs, and they have a feeling when they fix upon one that it is the right one.

Sometimes they seem quite certain that they are right. Sometimes they are very uncertain, but still right. Occasionally Miss E. has been pretty confident and yet quite wrong.

One serious failure rather depresses them, and after a success others often follow. It is because of these rather delicate psychological conditions that one cannot press the variations of an experiment as far as one would do if dealing with inert and more dependable matter. Usually the presence of a stranger spoils the phenomena, though in some cases a stranger has proved a good agent straight off.

The percipients complain of no fatigue as induced by the experiments, and I have no reason to suppose that any harm is done them. The agent, on the other hand, if very energetic, is liable to contract a headache; and Mr. Guthrie himself, who was a powerful and determined agent for a long time, now feels it wiser to refrain from acting, and conducts the experiments with great moderation.

If experiments are only conducted for an hour or so a week no harm can, I should judge, result, and it would be very interesting to know what percentage of people have the perceptive faculty well developed.

The experiments are easy to try, but they should be tried soberly and quietly, like any other experiment. A public platform is a most unsuitable place; and nothing tried before a mixed or jovial audience can be of the slightest scientific value. Such demonstrations may be efficient into putting money into the pockets of showmen, or in amusing one's friends; but all real evidence must be obtained in the quiet of the laboratory or the study.

## VII,

## AN ACCOUNT OF SOME EXPERIMENTS IN MESMERISM.

BY EDMUND GURNEY.

I.—*Local Anæsthesia.*

In the second report of the Committee on Mesmerism, an account was given of some experiments in the production, by mesmerism, of local rigidity and anæsthesia, under conditions which precluded the subject from knowing which particular part of his body was subjected to the mesmeric process. The object of these conditions was, of course, to eliminate the factor of expectancy. If the "subject" knows what part of his body is being operated on, that knowledge may alone be quite enough to produce rigidity and anæsthesia in the part; just as one may see a sensitive "subject" go into violent spasms at the touch of a coin, or on drinking water, which he believes to have been "magnetised," even though that belief is erroneous. But if the "subject" is ignorant what particular part of his body has been selected for the purpose, and if rigidity and anæsthesia in this part results from the making of passes over it or from the mere proximity of the operator's hand, then the phenomenon must be attributed to some direct and specific influence passing from the mesmeriser to the "subject." It may be remembered that the method adopted was to seat the "subject" in front of a table, on which his ten fingers were extended; while his body was covered in front by a very thick paper screen, extending far above his head, with holes in it for his arms to pass through. In this manner it was easy to make it perfectly certain that he could not see his hands. Different fingers, or combinations of fingers, were then mesmerised in succession, by passes made without contact, and so quietly as to prevent the "subject" from discovering, by means of currents of air, which of his digits was being operated on. To make assurance doubly sure, one of ourselves would make similar movements over some other finger or fingers than those on which the mesmeriser was at work. The experiments, as so far reported, were made with two "subjects," and have since been repeated with a third; and in every one of the numerous trials the mesmerised finger, or fingers, proved insensible to pain, so far as could be judged by the application of very severe tests. In every case, also, when the "subject" was told to double up his fist, the mesmerised member remained stickin out in

helpless rigidity, and so, for the first time, made its owner aware of the abnormal condition into which it had passed.

It will be observed that this second phenomenon—the rigidity—is, as a test, even more completely satisfactory than the first, the insensibility to pain. For as regards the insensibility, though nobody who witnessed the experiments was able seriously to doubt its genuineness, the objection always remains that very extraordinary feats in the endurance of pain have been known to be performed without any assignable motive. But with the rigidity a similar objection would have no weight; for though, of course, the rigidity itself might be easily simulated, the “subject” had—as I have explained—no means of knowing which was the right finger or pair of fingers to simulate with; and it is clearly out of the question that a mere guess on this point should have been unfaillingly correct.

But though the test afforded by telling the “subject” to double up his or her fist was thus evidentially the more complete, the test of insensibility is capable of being made very convincing on its own account. What is wanted is some mode of infliction which a person whose finger was in a normal state would be quite unable to endure without flinching, but which at the same time will leave no painful or unpleasant traces behind, when the finger had been demesmerised and resumed its normal condition. Fortunately such a mode of infliction is afforded by electricity. The shock of an intermittent current can be made strong enough to defy the most hardened powers of endurance, while producing no prolonged ill effects such as would follow a stab or a burn. Accordingly this test was adopted by Dr. Myers and myself on the 26th and 27th April last. The mesmeriser was Mr. G. A. Smith, and the subject was the young baker, Fred Wells, with whom most of the previous experiments had been made.

The same precautions as before were taken to prevent the “subject” from seeing his fingers, and thus to preclude the operation of expectancy. The result was entirely satisfactory. By gradually moving out the regulating-tube of an induction-coil, we could mark the stage at which the pain produced by the current began to pass our own powers of endurance, and we could then immensely increase its strength.\* Eleven trials were made, the finger to be mesmerised being each time selected by ourselves; and in every case there was very marked loss of sensibility in this finger. In ten of these trials the particular finger proved insensible to the very strongest shock that could be obtained from the apparatus; and in the eleventh to all but the very

\* The apparatus consisted of an induction coil, 4in. long 1½in. diameter, with 10 yards primary wire (No. 18 Birmingham gauge), and 50 yards secondary wire (No. 35 gauge); a regulator; and two quite new pint bichromate cells.

strongest. But there was sometimes a curious additional result. In five cases, when the mesmerised finger was being subjected to the full current, Wells said that he felt a weak effect in another part of his hands. When the middle finger of the left hand, and when the forefinger of the same, was the mesmerised member, this weak effect was felt in the thumb; on the other three occasions it was felt in the palm—once even in the palm of the other hand, and once in the palm of both hands. Wells described the shock, thus localised at a little distance from the mesmerised finger, as about as strong as the very slight shocks which we administered to the unmesmerised fingers just to make sure that they remained sensitive—showing that the strong current was producing an effect immensely below the normal. I may mention that I once by accident touched one of the unmesmerised fingers with the terminal wire for the fraction of a second, when the current was at its full strength; and the violent wince and exclamation which resulted were a pretty sure index of what was felt.

There was a further point of importance in the last four of these trials. The effect was then produced *without any passes at all*, the operator merely holding his hand downwards over the destined finger of the "subject," from which the tips of his own fingers were about two inches distant. Wells's hands are tolerably pachydermatous; and it is extremely difficult to believe that, under these conditions, any physical indication, such as a very slight difference of temperature, could have made him aware which of his ten fingers was nearest to the operator's hand.

We then proceeded to test a hypothesis to which attention was drawn in the second report of the Committee. We there referred to the question how far these finger-experiments bore out the idea that some special *effluence* or some special form of local "nervous induction," passed between the fingers of the operator and those of the "subject." If this were the case, then apparently it ought not to be necessary that the operator should himself *know* over which of the subject's fingers he is making passes, or holding his hand; the effect ought to be producible when he is looking away, and his hand is guided to the appropriate position or movements by a third person. If, on the other hand, this blind and passive mode of operating prove unavailing, and the *knowledge* of the operator as to which of the "subject's" fingers is to be affected, with a distinct direction of attention to that finger, prove to be indispensable conditions of success, then the theory of a special effluence or special local induction seems inapplicable, or at any rate insufficient. Now trial showed that these conditions *were* indispensable; the selected finger remained perfectly sensitive and flexible when passes were made over it by my guiding Mr. Smith's hand, while his eyes and attention were turned in another direction.

The deductions from this fact are very interesting; for if the operator's knowledge and attention are necessary for successful results, then those results seem inevitably to fall under that capacious category of Thought-transference, of which members of this Society hear so much. It is true that the thought is not conveyed *as* a thought; for no impression as to which is the selected finger is conveyed to the subject's intelligence. But among the evidence of telepathy which the Literary Committee have collected, there are several instances where the emotional or volitional condition of one person has produced actions in another person which the latter has been quite unable to account for, and has performed in obedience to a blind impulse. And it is to the same class that the local effects which I have been describing seem to be partly referable. For it certainly does not seem impossible to suppose that if a marked effect may be telepathically produced by the condition of one person on the *motor* system of another, without the transference of any distinct idea, a like effect may also be produced on the *sensory* system. It will probably be granted by those who at all accept the principle of telepathy, that the operator's knowledge as to which particular finger he is operating on is an idea which might be communicated by Thought-transference; it will be further granted by those who realise the power of suggestion and expectation to produce physical effects, that such an idea, if present to the "subject's" consciousness, might lead to local paralysis of movement and sensation in the finger thought of; and, finally, the analogy of the cases of blind telepathic impulse, to which I have just referred, makes it conceivable to us that this very same train of events might take place with the *omission* of the psychical element on the subject's part—with the omission, that is, of his knowledge or conscious idea of the particular finger that was being affected. If this were so, we should have established one more link of connection between the *spontaneous* telepathic communications, between persons at a distance, and the *experimental* communications, occurring otherwise than through the recognised sensory channels, which may be obtained within the four walls of a room.

At the same time, this supposition does not altogether meet the case, so far as the recent experiments are concerned. For while these experiments showed—as I have described—that the mere proximity of the mesmeriser's hands was ineffective if his attention was not directed to his work, they also showed that mere concentrated attention on his part, without any manual process, was equally ineffective. When Mr. Smith attempted to produce the local effect by steadily gazing at the selected finger, without approximating his hand to it at all, the normal condition of the finger remained quite unchanged, and it proved sensitive to the very weakest shock. It appeared, therefore, that the local physical process, whatever it may be, though not producible

apart from thought and attention, was still in itself indispensable ; and thus the suggested analogy between experimental and spontaneous phenomena is here far from complete.

## II.—Community of Sensation.

The following experiments in transference of pains and tastes were also made by Dr. Myers and myself, on April 26th, the agent being Mr. G. A. Smith, and the "subject" a very intelligent young cabinet-maker, named Conway, who had been thrown into a light hypnotic trance. For the first set Mr. Smith was in light contact with Conway, behind whom he stood. No hint was given to Conway as to whether his answers were right or wrong : he was simply asked by Dr. Myers or myself what he felt. Mr. Smith kept perfect silence throughout.

1. Mr. Smith was pinched, by one of the experimenters, on the right upper arm. Conway localised very nearly the corresponding place on the left arm, and then the right spot on the right arm.

2. Mr. Smith's right foot was pressed. Conway began to move his right leg uneasily, and complained of pain from the foot upwards.

3. Mr. Smith's right little finger was pinched. Conway complained of pain in the right shoulder.

4. The lower lobe of Mr. Smith's left ear was pinched. Conway complained that the hair above his right ear was being pulled.

5. Mr. Smith's right upper eyelid was pinched. Conway complained of pain in the forehead.

6. Mr. Smith's left popliteal space was pinched. Conway complained of pain in the lower third of the left thigh.

7. Mr. Smith was pinched in the right lumbar region. Conway complained of pain in the left hypochondrium and lumbar region.

In the next set of trials there was no contact whatever between Mr. Smith and Conway. Nor was Conway (who was still in the hypnotic state) informed before the experiments began of what nature they were to be. Standing at some distance behind him, I suddenly and silently gave Mr. Smith some salt, motioning to him to put it into his mouth. He did so ; and Conway instantly and loudly exclaimed, "What's this salt stuff?"

I now gave Mr. Smith in succession—

Conway said—

<i>Sugar</i> .....	"Sweeter ; not so bad as before."
<i>Citric Acid</i> .....	"Bitter ; something worse—a little reminds me of cayenne—sweety."
<i>A Raspberry Drop</i> .....	"A sweetish taste—like sugar."
<i>Salt</i> .....	"I told you I liked sweet things, not salt—such a mixture !"
<i>Cloves</i> .....	"Don't like it ; hot—little bit of honey mixed with it."

<i>Salt</i> .....	“Something acid, salty—first one thing, then another—like brine.”
<i>Powdered Ginger</i> .....	“Hot; dries your mouth up. Don't like it,—reminds me of mustard.”
<i>Sugar</i> .....	“A little better—a sweetish taste.”
<i>Powdered Alum</i> .....	“You call that sweet, do you? Brackish and bitter this—enough to skin your mouth out; bitter.”
<i>Cayenne Pepper</i> .....	“It's hot, and there is some sugar in it just to soften it over a bit. It is hot—you would feel hot, I can tell you.”
<i>Cloves</i> .....	“Not so very much better, but it's sweeter; it's sugar, only something else with it.”
<i>Vinegar</i> .....	Conway had sunk into a deeper hypnotic sleep, and made no remark.

Throughout the series Mr. Smith preserved perfect silence; and the only remarks made by Dr. Myers and myself were brief inquiries as to what Conway tasted, with an occasional word calculated to mislead him.

These are not picked results; only one other series of experiments has been made with Conway, and these are fully reported in Part V. of the Proceedings. There are practical difficulties in the way of obtaining either him or Wells for regular and frequent trials; as both are in positions of responsibility, and their time is very fully occupied.

## VIII.

## DIAGRAMS

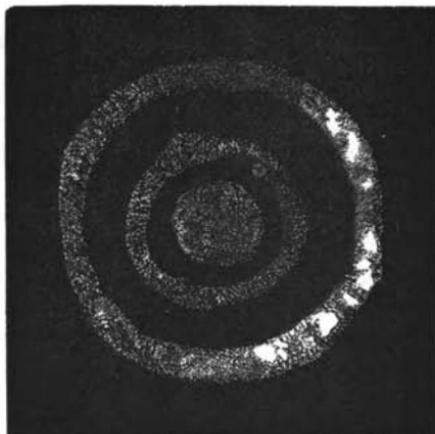
## ILLUSTRATIVE OF THOUGHT-TRANSFERENCE

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The following diagrams, illustrative of a special form of Thought-transference, are part of a series referred to in Part V. of the Proceedings, p. 7, under the head of results obtained by independent investigators. Professor Barrett has seen the "agent," Mr. J. W. Smith, of Brunswick Place, Leeds, and his sister, the "percipient," and has carefully explained to them the necessary precautions; but their description of the mode in which they had worked before this interview convinced him that those previous trials had been conducted with due care, and that the results were genuine. The experiments have been made throughout without contact. The first four of the diagrams here engraved were made before Professor Barrett's visit; the last four have been made since his visit.

It may be added that whenever the Committee on Thought-transference obtain evidence of a case of this kind, where the power seems tolerably continuous, and the conditions, as reported, seem satisfactory, they will do all in their power to obtain opportunities for personally conducting the experiments. Meanwhile, they cannot too strongly urge the importance of having trials made as widely as possible in families and private circles. They are continually hearing of results—obtained without contact or the possibility of sensory indications—which show that the genuine faculty is by no means extraordinarily rare; but often the scientific value of the experiments is not realised, and no written record has been kept. If only every indication of this sort were carefully followed up, a body of evidence might be collected which would greatly hasten the general acceptance of the facts.

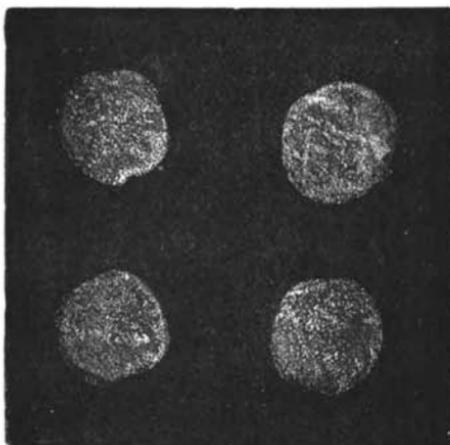
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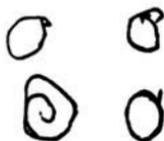
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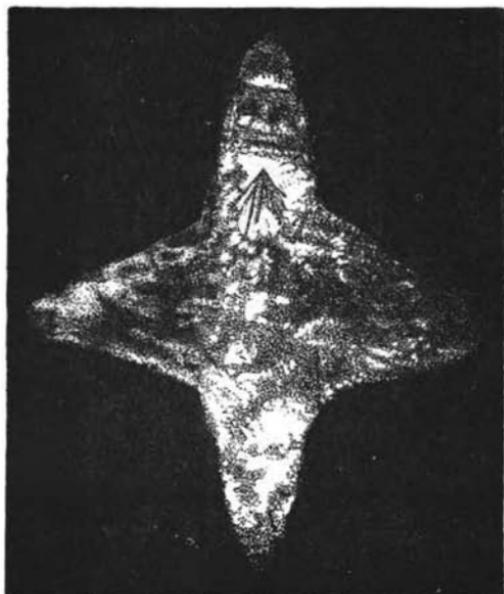
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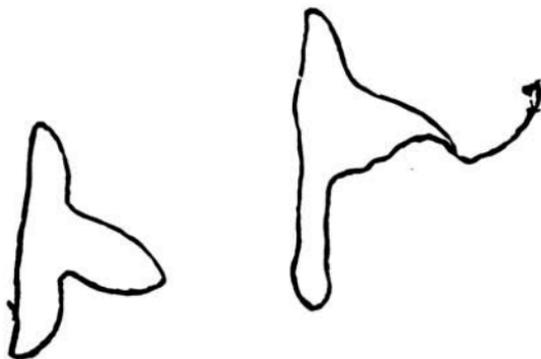
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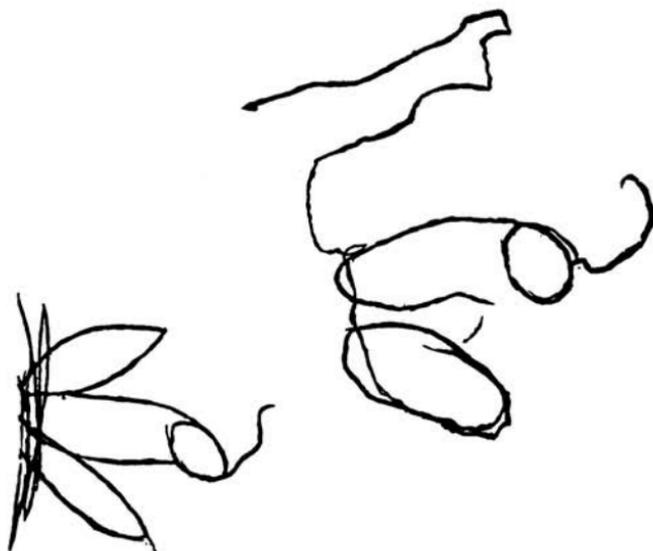
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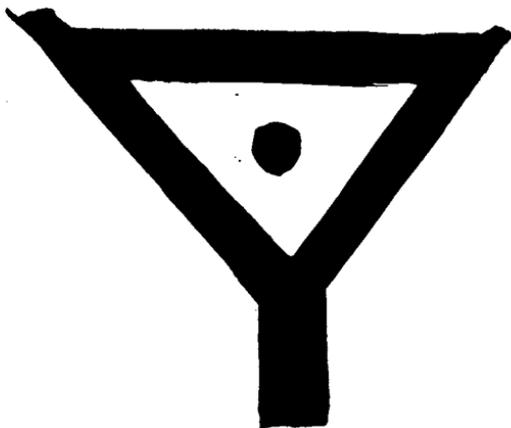
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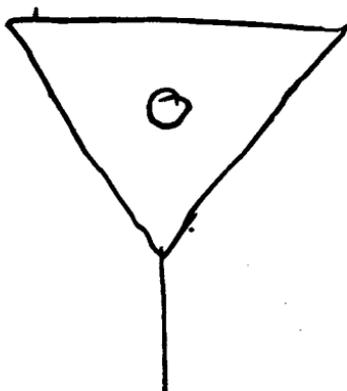
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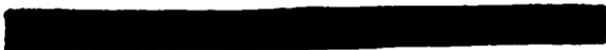
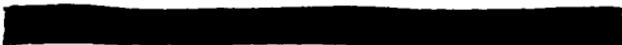
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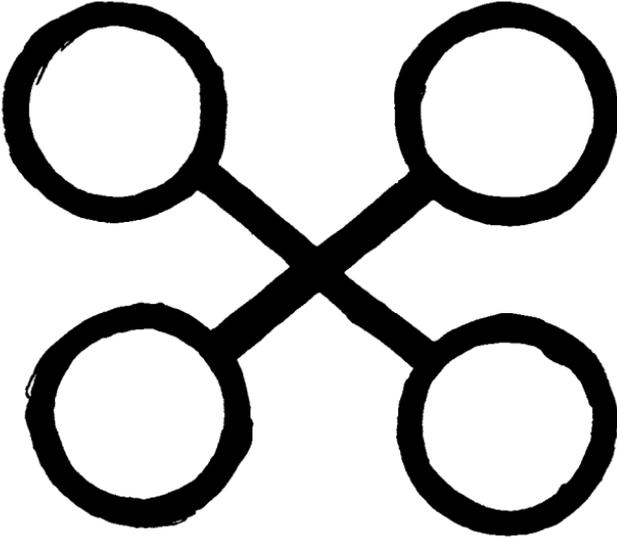
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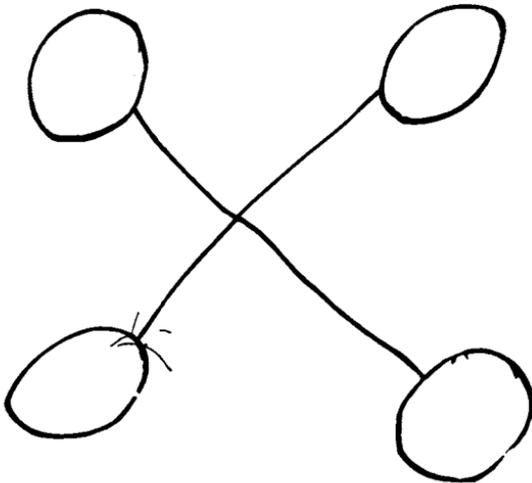
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REPRODUCTION.



The following table of results was filled up by Mr. J. W. Smith on one of the forms supplied by the S.P.R.

EXPERIMENTS IN THOUGHT-TRANSFERENCE.			
Agent or Agents.		Percipient.	
J. W. SMITH.		KATE SMITH.	
Date.	Object selected.	First trial.	Second trial.
March 11.	Figure 8.	Correct first time.	
—	Figure 5.	Correct first time.	
—	Black cross on white ground.	Correct first time.	
—	Colour blue.	Correct first time.	
—	Cipher (0).	Correct first time.	
—	Pair of scissors.	I did not say what ( <i>i.e.</i> , what form of experiment—figure, colour, or object) was to be next, but carefully and without noise laid a pair of scissors on a white ground, and in about one minute and a-half she exclaimed, "Scissors!"	
Group.	Total No. of experiments.	No. right on first trial.	No. right on second trial.
3 figures. 1 colour. 1 object.  1 pair of scissors.	6	6	

**OBSERVATIONS:** Whilst sitting at dinner (March 11th, 1884), I was thinking about a person who had died. Just then one of my sisters (not the thought-reader) exclaimed: "I wonder if it will be a large funeral." We had not spoken about that subject previously. After that I thought to myself I would see if I could make her hum a tune. I then (to myself, that is to say, without uttering any sound whatever) hummed a tune, and to my surprise she also sang aloud the *same* song. After that, I resolved that she should lift her fork up (she had finished her dinner); she did so immediately. I do not know whether this was an instance of Thought-transference or not, but if it were not so it seems an astounding coincidence. (No contact.)—J. W. S.